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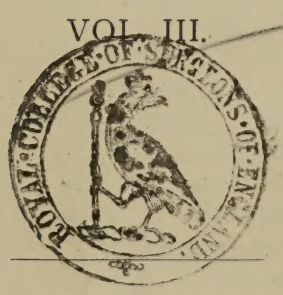

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SATURDAY, OCTOBER 5, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON EMPHYSEMA OF THE LIVER OCCURRING IN A CASE OF TYPHOID FEVER.

BY J. FORSYTH MEIGS, M.D.,

Attending Physician to the Pennsylvania Hospital.

(Delivered at the Pennsylvania Hospital, September 2, 1872.)

Notes by Dr. Wharton Sinkler.

G. O., æt. 25 years, was admitted to the Pennsylvania Hospital, August 30, 1872. Sailor; single; was born in Nova Scotia, and has been going to sea for ten years.

He sailed from Boston, August 23, in excellent health, and when three days out was taken with diarrhœa and severe headache. He slept well at night, however.

On admission, was extremely feeble; pulse weak and frequent; face dusky, eyes suffused and conjunctiva injected; skin very hot; tongue coated and pasty; had diarrhœa. Heart very weak. Answered with hesitation, and stammered slightly. Mind acted very slowly, and it was impossible to get an accurate history of his past life; in regard to recent events he was more clear. He stated that until March, 1872, he had enjoyed robust health; at this time he contracted syphilis. He has had a cutaneous eruption, sore throat, and periosteal pains. About one month ago, he says, he had two chancres and gonorrhœa, for which he was treated in Boston, in the Massachusetts General Hospital. The chancres soon healed, but the urethral discharge did not cease until three or four days after leaving the hospital.

The patient was at once put in bed, and ordered infus. digitalis f℥ss t. d., and for the diarrhœa, opii gr. ¼, capsici gr. j, acid. tannic. gr. ij, every two hours, whisky, f℥viij a day, milk, and beef-tea.

Temperature in the evening of this day, 102°.

August 31.—Was delirious all night, and could only be kept in bed by forcible restraint. Tongue dry and red; skin dingy; heart feeble; vomits frequently. One quart of urine was drawn off by catheter this morning. The digitalis was stopped, and spt. terebinth. gtt. x every two hours, and quiniæ sulph. gr. viij a day, ordered. Pulse, 120; resp., 24; temp., 101°. Evening temp., 101½°. The urine was found to contain a marked quantity of albumen, and a specimen was sent to Dr. Richardson, Microscopist of the Hospital, for examination. He reported that he detected "small hyaline and medium-sized granular tube-casts, the latter much broken up, the former showing well. Some few of the casts have attached to them epithelial cells, which exhibit minute oil-globules."

September 1.—Skin is not so dingy. Rose-colored spots appearing on chest. Abdomen slightly tympanitic. Tongue coated, and sordes on teeth. Had no stool yesterday until afternoon, when he had a copious watery evacuation. Passes urine himself. Stop turpentine mixture, and give acid. muriat. dil. gtt. x t. d. Pulse, 110; resp., 30; temp., 103°.

September 2.—Somewhat better to-day. Does not vomit, and bowels quiet; takes his nourishment well. Sleeps most of the time, occasionally muttering, and has subsultus tendinum.

September 3.—Looks rather more intelligent, otherwise about the same; spt. chloroform English f℥ss every three hours. Pulse, 112; resp., 24; temp., 101°. Evening, pulse, 108; resp., 24; temp., 102½°. On adding nitric acid f℥ss to urine f℥ij in a test tube, and applying heat, an intensely dark-red color is produced, showing, according to Dr. George Harley, the presence of a great amount of urohæmatin.

September 4.—About the same. Still delirious at night, but quiet during the day; easily roused, and answers when spoken to. Pulse, 114; resp., 28; temp., 101°. Evening, pulse, 112; resp., 30; temp., 102½°. To f℥iv of urine sufficient nitric acid to set free the coloring-matter was added, and then placed in a f℥vj bottle. Ether sulph. f℥ss was poured in, and the whole put aside for twenty-four hours. At the end of this time the urohæmatin dissolved in the ether had formed a layer resembling currant jelly, on the surface of the liquid.

September 5.—Had a hemorrhage from the bowels last night, and has had several bloody stools to-day. Takes milk and beef-tea readily, but refuses to swallow whisky. Prostrated, dull, and heavy. Urine contains about one-eighth albumen; sp. gr. 1020. ℞ acid. tannic. gr. v every hour. Pulse, 100; resp., 30; temp., 100°. Evening, pulse, 120; resp., 24; temp., 104°.

September 6.—No hemorrhage since yesterday. The tongue moist and cleaner. Ordered one pint of wine a day, instead of the whisky, as this sickened him. Pulse, 114; resp., 28; temp., 103°. Evening, temp., 104°.

September 7.—Had a small tarry stool this morning. Tongue pasty. Takes milk and wine freely; is heavy and somnolent. Pulse, 108; resp., 24; temp., 102°. Evening, pulse, 126; resp., 30; temp., 103°.

September 8.—Hemorrhage from the bowels has returned. Tongue dry and covered with sordes. ℞ acid. gallic. ℈j every two hours. Pulse, 114; resp., 28; temp., 103°. Evening, pulse, 108; resp., 26; temp., 103°.

September 9.—About the same; no hemorrhage since yesterday; increase wine to Ojss a day. Pulse, 114; resp., 26; temp., 101½°. Evening, pulse, 116; resp., 24; temp., 102°.

September 10.—More feeble, but takes all his nourishment. No more hemorrhage. Skin more dusky. Stop gallic acid, and take spt. chloroform English f℥j every two hours. Pulse, 100; resp., 18; temp., 102°. Evening, pulse, 144; resp., 30; temp., 102°.

September 10.—Had a profuse hemorrhage from bowels last night; is weaker. Pulse, 140; resp., 33; temp., 103°. Evening, pulse, 144; resp., 30; temp., 102°.

September 12.—No more hemorrhage; yesterday in the afternoon had a dark feculent stool. There is no abdominal tenderness. Pulse, 164; resp., 30; temp., 102°. Evening, pulse, 141; resp., 30; temp., 104°.

September 13.—Yesterday evening had a chill, sank rapidly, and died at one o'clock this morning.

Autopsy, at 12½ P.M., *eleven and a half hours after death.*—Frame large; limbs somewhat thinned, but not emaciated. Marked swelling at sides of neck—both sides—which extends downwards to sides of thorax, over deltoids, and over clavicular region, evidently subcutaneous emphysema. Much discoloration, from stasis of dependent parts of body. On opening the chest and abdomen, air escaped with a hiss from the peritoneal sac. This was found afterwards to have come from the intestine through a perforation. The lungs were pale, fully distended with air; only basis of inferior lobes congested moderately and slightly splenified; scarcely any old pleuritic adhesions; perhaps two ounces of pinkish serum in pericardium; heart natural.

Abdomen.—Liver large, especially right lobe, which was considerably thickened. No adhesions of liver to diaphragm, and, therefore, no possible communication

between liver and thorax. Spleen moderately enlarged, and dark-colored. On lifting the intestines, there was found in the left side of the abdomen a good deal of thin, dirty, feculent fluid, which had escaped through a small perforation in the ileum. No adhesions nor bright vascularity of the peritoneum, or of the intestines; no lymph-exudations. Over the lower portions of the ileum were some dark congested spots. On laying open the ileum, Peyer's glands were found to be generally ulcerated, with long flocculi hanging from the centres of the patches, colored yellow by fæcal matter. Ulcers not deep, edge of ulceration thin, but cut abruptly from the general surface. In the lower few inches of the ileum, much blackish material was strewed over the surface, evidently altered blood. Mesenteric glands enlarged, highly vascular, and softened; many of the solitary glands of the intestine were ulcerated.

Liver was much enlarged (one-third), color dirty brownish-yellow. Tissue everywhere highly crepitant, light and spongy. Adhesion greatly lessened, so that the finger could be readily thrust in, making a ragged hole. Pieces cut off and thrown into water floated exactly like lung, and as lightly. Tissue singularly cribriform, exhibiting innumerable small cavities, like the cells of the lungs. No large cavities in this organ. On pressure, much dirty, frothy, thin liquid escaped, which looked like ichor, but not like pus.

No large or small purulent collections. Gall-bladder filled with thin yellowish bile.

Kidneys were both considerably enlarged (about one-half), dark-colored and congested; distinctly crepitant, but not so much so as the liver; not floating in water. The capsule was easily detached.

Microscopic Examination of the Liver and Kidneys.—Liver very fatty, cells broken up and disintegrated, scarcely any of full size and natural character, fat in large drops scattered over the field, and the broken, small, angulated, and irregular cells all containing much fat in minute refracting points.

Kidneys not fatty. Tubes large, swollen, and crowded with dark, cloudy cells, not fatty. Innumerable loose epithelial cells in field, which are very granular and cloudy.

Remarks.—There was something about this man's appearance, when I first saw him, which struck me as peculiar. He was sitting upon a sofa outside of the ward, having just come in from his ship. He was dull, looked heavy and stupid, had a rather thinnish face for a man of his large and powerful build, spoke slowly and almost in a stammering way, and showed a sluggish memory as to facts.

The next day, when he was in bed, I suspected he had typhoid fever; and yet there was an exhaustion which you do not often see so early in the disease. His eyes were somewhat sunken in the orbits, and his face was haggard and rather pale, not dusky as you so often see in this fever, whilst his thorax was dark-colored, approaching to a cyanotic hue. Finding that his bladder was rather full, I drew off the urine with a catheter, and upon examination found that it contained a good deal of albumen. On adding an excess (about one-fifth) of nitric acid to it, and boiling, it became very dark in color, of a violet tint. This led me to suspect the presence of a large amount of coloring-matter in it, of urohæmatin, and I requested the resident physician, Dr. Cox, to add nitric acid in excess to four ounces of the urine, to shake this well together, then to put it into a six-ounce phial with one ounce of sulphuric ether, shake it again, and let the mixture stand. Thus treated you saw it the next day, when, if you recollect, there was on the surface of the fluid a layer of about three quarters of an inch in thickness, of a jelly-like substance, of a dark pink color. This is Dr. George Harley's method of showing the presence of large amounts of urohæmatin, and demonstrated the fact that the patient was throwing off through the kidneys a great excess of the coloring-matter of the blood, the result, according to Dr. Harley, of a very rapid and unusual destruction of the red corpuscles. This condition of the urine explained, I thought, in part at least, the unusual exhaustion of the patient.

After this the patient grew gradually worse, had, as you have all heard from the notes of the case, obstinate and copious hemorrhage from the intestines, and died. Whether this rapid loss of the red corpuscles of the blood had anything to do with the condition of the liver found after death, I do not know. This condition is so involved in mystery, that it is important to put upon record all that was observed in the case.

I showed you the liver, kidneys, and small intestines at the last clinic, and told you how very rare this condition of the liver—which is called by some emphysema hepatis, and by certain French writers pulmonization of the liver—is, and how fortunate you were in being able to see so curious a specimen of disease.

Emphysema of the liver must be a very rare phenomenon, since it is mentioned by so few observers. In that great treasure-house of pathological medicine, Rokitansky's Pathological Anatomy, I cannot find a single specific reference to it. I have looked through seven volumes of the Year-Books of the Sydenham Society, and did not find a case. Bamberger, in Virchow's Hand-book of Pathology and Therapeutics, in the chapter on the liver, makes no mention of it. Neither Budd in his Treatise on the Liver, nor Watson in his Practice, nor Graves, who saw so much typhus in Dublin, in his great work on the Science of Medicine, nor the writers on Typhoid Fever and Diseases of the Liver, in Reynolds's System of Medicine, nor the Compendium de Médecine Pratique, even glance at it.

But Louis, in his work on Typhoid Fever, whilst he states that he has never seen it in that fever, tells us that he has met with it three times in patients who had died of other acute diseases. And in his work on Phthisis he reports at length an instance in which it occurred at the close of the disease. Murchison, in his work on Fevers, does not seem to have seen it himself, but refers to Louis's cases, and quotes four cases which were seen in typhus fever by two French observers, Barudel and Jacquot.

Frerichs, in the second volume of his work on Diseases of the Liver, Sydenham Society edition, vol. ii. page 369, refers to it, though he does not seem to have met with it himself. He mentions, however, the case of a man who had died of ileus, in whom there was enormous tympanitic distention of the walls of the abdomen, and in whom air had been forced up the common duct of the liver into the gall-bladder, so that the latter was found after death distended with air to the size of an ostrich

egg, and without any bile in it. But this was not the kind of case we have had before us, nor the kind referred to as a true emphysema hepatis.

Louis says (Typhoid Fever, translated by H. I. Bowditch, Boston, 1836, vol. i. 263), "There was no emphysema [of the liver] in a single case; but in those patients who died at various periods from the commencement of the disease, the blood-vessels of the liver contained a greater or less quantity of air."

In the remarks on the liver in patients who died of other acute diseases (vol. i. p. 265), he says, "The color of the liver was greenish, or of a pistachio color, throughout the organ in five cases, in three of which there was emphysema of the liver. . . . This emphysema, which coincided with an analogous state of the cellular tissue of the neck, to a greater or less extent, was especially remarkable, as I have elsewhere observed in an analogous case [work on phthisis], in this, that notwithstanding the great number of void spaces in the liver, the organ was not larger than natural. In whatever light, however, we regard the origin of this affection, whether we consider it to have commenced before or after death, it seems to me impossible to conceive without astonishment of the fact that an affection heretofore called putrid fever has never given rise, in any one of the forty-six cases we are analyzing, to any phenomenon justifying this title, whilst other diseases, whose natures do not repel the idea of putridity, would seem, from the above result, to have this character so often."

In his work on Phthisis (Syd. Soc. ed., p. 123) Louis gives a case of phthisis in a man twenty-seven years of age, in whom at the autopsy there was found general emphysema, more highly developed in the neck and lateral parts of the chest than elsewhere,—accompanied with phlyctenæ filled with a violet-colored liquid. The arms crepitated, and were yet very small,—a proof of the extreme emaciation of the subject. False membranous adhesions, rarely separable, existed both on the liver and the diaphragm. The liver was of dark bistre-color, of very moderate size, very soft, and of such a specific gravity that it floated on the top of water like a healthy lung; internally, it exhibited an infinite number of empty spaces, varying in size from that of a millet-seed to that of a pea, and, taken together, forming a larger space than that occupied by solid tissue.

He says, speaking of this emphysema, that it does not appear to have been "the most remarkable phenomenon connected with it; its size, scarcely equal to that existing in the healthy state, seems to me still more extraordinary. For if we suppose that the emphysema was developed shortly after or a little before death, we must admit the liver to have previously been most extraordinarily small; and inasmuch as there has, perhaps, been no example met with of so small a liver as we should be constrained to imagine under this hypothesis, we are almost inevitably led to believe that, in the case in question, the emphysema was developed long before death, in a gradual manner, and in consequence of some morbid alteration or other of the parenchyma of the organ."

In the case, the specimens of which you saw the other day, there was certainly no emphysema of the neck before death, or, at least, none was observed, as I believe it would have been had it existed. It is difficult to suppose that the singular cribriform and spongy character of the liver which you saw, and which depended upon the formation in the tissue of the gland of innumerable small open spaces filled with gas or air, so that the liver looked like lung-tissue, or like a very delicate honey-comb, could have been all produced in the eleven hours and a half which elapsed between the moment of death and the autopsy. Moreover, there was no decomposition of the tissues in other parts of the body. The weather was not very hot, and certainly there was no putrefactive process going on in the kidneys, which, like the liver, though to a much smaller extent, were also emphysematous.

The probability seems to me very strong, that the true nature of this singular lesion is best given by Frerichs, whose words I shall quote. He says, "The cause of this peculiar development of gas [chapter on Emphysema Hepatis, Disease of the Liver, Syd. Soc. translation, vol. ii. p. 369] in the liver is obscure, and the nature of the gas is unknown. We are not, in my opinion, warranted in assuming, with Piorry, that the intestinal gas reaches the liver through the eroded roots of the portal vein. It is more probable that the affection ought to be regarded as a local process of disintegration, and that it originates, under certain circumstances, in those complicated metamorphoses of matter which occur in the liver from the presence of large quantities of the carbo-hydrogens. Whether emphysema of the liver may, as Louis and Piorry believe they have proved, exist during life, and be diagnosed from the disappearance of the hepatic dulness, can only be satisfactorily determined by further observations."

The treatment pursued in the case was of no avail, though I do not see, even now, how it could have been mended. There must have been some deep-seated fault in both the fluids and solids of the patient, which were beyond the resources of the medical art. He was kept rigidly at rest in bed, as fully nourished with milk and beef-tea as possible, and he had the best remedies within our control for the suppression of the hemorrhage and to quiet the nervous phenomena present.

Dr. Charles Cambray, of Cambrai (De la Dyssentérie et des Maladies du Foie, p. 533), speaks of having seen, on one occasion, emphysema of the liver.

Suicide attempted by Means of Petroleum (*Mitt. d. Aerztl. Ver. in Wien*, 1872, No. 6).—A woman, forty-five years old, drank one-half litre of petroleum, such as is found in the shops, for purposes of suicide. Symptoms of intoxication were very slight; pain in the stomach, and fever, were almost entirely absent. The cutaneous surface smelt strongly of the petroleum, but not the breath. Her urine contained albumen, pus, and epithelium, and manifested an alkaline reaction. The strong odor of petroleum remained upon the skin for six days, after which the woman recovered entirely. It is interesting to note that the use of petroleum as a substitute for brandy is a common matter among the lower classes in the suburbs of Vienna.

ORIGINAL COMMUNICATIONS.

THE NEW OPERATION FOR COLORING CORNEAL OPACITIES.

BY R. J. LEVIS, M.D.,

Surgeon to the Pennsylvania Hospital, and to the Wills Ophthalmic Hospital.

THE artificial coloring of corneal opacities, which, from their characteristic whiteness, are termed leucoma or albugo, is a new surgical procedure that has practical application for cosmetic objects. The same coloring process, applied as I shall suggest, with the object of rendering certain portions of the transparent cornea opaque, so that no visual rays can be transmitted, will prove of value for the palliation or correction of some optical defects of vision.

The disfigurement of the glaring white opaque spaces of the cornea can be concealed by indelibly tinting, so that if central, they shall show the blackness of the natural pupil, or if peripheral in location, the color of the underlying iris may be most deceptively imitated. Should even the entire cornea be opaque, a very natural imitation of the appearance of the whole circle of the iris and the pupil can be accomplished.

The tinting of corneal opacities is effected by imbuing them with various pigments which remain permanently in the tissues. The operation is almost painless, and, in my experience, no irritation has followed in any case. It is simply that which, when applied to the skin, is called *tattooing;* and in the eye the coloring-matter is, on similar principles, introduced beneath the epithelial surface of the cornea.

Various suggestions of instruments have been made for the performance of this little operation by Wecker, of Paris, who lately introduced it, and by other operators, such as a lancet-point. a grooved needle, and sewing-needles bound around a handle, as a pen-holder. After some experience, I find that the most convenient and effective instrument is made by binding together, with a thread, from three to six very fine sewing-needles, for use in accordance with the size of the blemish to be removed. The points of the needles may be made to project equally by holding them perpendicularly on a hard surface before the binding is tightly applied. By inserting the little bundle of needles into a handle, as that of a cataract-needle, or into a hole drilled in the end of a stick of similar form, the instrument is rendered complete.

Coloring-materials of various hues and characters may be used, such as many of the water-colors of the artist, but the great essential is a deep-black tint; and this is perfectly effected by Indian ink, which is a combination of lampblack and gelatin. It seems to be simply requisite that the pigment be unirritating and insoluble matter, and in a state of minute subdivision. For tinting in imitation of the iris, blue or brown pigments will be required, and other colors may be blended with artistic effect. The paints are prepared for use by rubbing them down to a pasty consistence with water. With the object of preventing the prepared material from drying, so that it may continue ready for use, the mixture may be made with the addition of glycerin.

To perform the operation, I do not ordinarily find it necessary with adults to use either the speculum or the fixing forceps. The upper eyelid is elevated by the operator or by an assistant, one finger retaining the lid in position whilst the adjoining finger presses against the inner canthus to steady the eyeball; and the patient is directed to look intently with both eyes at some point on the wall or the ceiling of the room. Operations on children or on restless adults may require the spring speculum and fixation of the globe with forceps, and even anæsthesia might in some cases be necessary.

The surface of the opaque spot should be wiped clear of moisture with a piece of lint or linen, and the paint is then thickly applied over it with a small pencil. The needle-points are made to penetrate repeatedly and rapidly in varying directions, until much of the opaque surface is gone over and is imbued with the pigment. As the extent and perfection of the coloration cannot be at once accurately determined, two or more repetitions of the operation are usually required.

When an accurately formed pupillary margin or a peripheral circle of the iris is to be represented, it is well to make, in a careful manner, circular dotted lines of color with the needle-points. The inclosed space can afterwards be rapidly filled in with color.

It is not necessary, as has been directed, that the patient's eye should remain open until the pigment dries, as the coloring-matter that is imbedded in the tissues cannot be washed off by the tears, and the drying of the remaining excess on the surface will not tend to fix it there.

In regard to the relief of optical defects by rendering the cornea in some portions opaque, a stenopæic effect may, for instance, in certain cases of permanent mydriasis, be produced by leaving only a central pupil-like space uncolored for the transmission of visual rays.

The same plan may be advantageous in the defect of vision of albinism, substituting the deficiency of pigment in the choroid; and it may also apply to incurable cases of photophobia, by partially excluding the light.

In cases of the existence of unnatural openings in the iris, and of coloboma, whether congenital or due to traumatic causes, the tinting process may be available to shut off the most eccentric rays, and dazzling and confusion of vision will thus be avoided.

The procedure would seem to be available for the relief of the optical defect of the extreme astigmatic refraction of conical cornea, the apex of the conicity being rendered opaque after the performance of an iridectomy downwards.

Irregular astigmatism, which is a varied refraction in the same optical meridian, and is often due to irregular curvature of the cornea, caused by thinning after severe inflammation, traumatic injuries,

and the faulty union of the section in extraction of cataract, may be palliated by obscuring the cornea in curvatures of its most defective refraction.

CLINICAL NOTES.

BY C. H. BURNETT, M.D.

THE first and second cases which I shall describe show the advantages, in some forms of deafness, of two new operations introduced to otiatrics by Prof. Adam Politzer, of Vienna.

The indications for, and the method of performing them have been fully explained by Prof. Politzer, in a lecture, translated into the *Medical Times* for March 15, 1872.

In order, however, to bring before the reader's mind the chief points in that lecture, I shall simply state that the operations, very similar in their nature to each other, are indicated in cases of chronic deafness due to retraction of the membrana tympani as a whole, or when bands of fibrous tissue in any part of the membrane interfere with its vibration.

The first condition is characterized by prominence of the folds of the membrana tympani, especially the posterior fold, and the foreshortening of the handle of the malleus.

The second condition is characterized by prominent bands or ridges running across the surface of the membrane, with or without foreshortening of the handle of the malleus. These bands hold the membrana tympani in a fixed position, and any relief afforded by the air-douche is only temporary, for the membrane soon returns to its former position in consequence of contraction of the fibrous bands.

In order to relieve this abnormal tension of the membrana tympani, Politzer has performed an operation in a series of cases of each form of the disease, consisting of cutting through the posterior fold of the membrana tympani in the former case, and of a severance of the fibrous bands in the latter. This is accomplished with a delicate knife, rounded and sharpened at the end, and which is curved at an angle of forty-five degrees from the handle, or straight, according to the choice of the operator. Politzer recommends the curved form, as allowing more freedom in vision, the hand of the operator being below and not between the ear of the patient and the eye of the surgeon, as it is very apt to be if one uses the straight form of knife.

Gruber prefers a perfectly straight knife in all operations on the ear.

In performing the following operations, I have adhered to Politzer's advice respecting the form of the instrument.

The first case was one of so-called chronic catarrh of the middle ear, in a man sixty-three years old, who presented himself at the Ear Department of the Philadelphia Dispensary last April, complaining of deafness, and desiring treatment. The right ear was the worse, the watch audible 10 metres to the normal ear being heard only 7 cm. The membrana tympani on that side was retracted, marked with cicatrices, the *folds* were *prominent*, and the handle of the malleus was greatly foreshortened. The air-douche gave no relief, being unable to overcome the retraction of the membrana tympani. I then determined to cut through the posterior fold of the membrane, taking care to cut from above downwards, in order to avoid severing the chorda tympani, which lies adjacent to the point usually chosen for the operation in question.

The operation required but a few moments, caused very little pain, and but a drop of blood exuded from the wound, which was 2 mm. in length. There were no unpleasant symptoms of nausea or dizziness on the part of the patient, who never flinched, but remained sitting upright in an ordinary chair, without any support to his head; although it is advisable in most cases to have the head of the patient placed against a firm support, to prevent any sudden movement away from the operator.

The hearing increased instantly to 17 cm. for the watch. Two days later, the hearing-distance had increased to 50 cm. for the watch, showing that, although this patient was old and not the best subject for such an operation, enough was gained by the operation to demonstrate its practicability.

The second operation was upon a female thirty-nine years old, who had noticed deafness five years previous to the time she presented herself for treatment, in April last, at the Philadelphia Dispensary. She showed the usual symptoms of chronic catarrh of the throat and ear, the latter of the non-secretory form, and had probably been hard of hearing longer than she imagined. The right ear was the more affected, and to that the treatment was directed. The hearing-distance for the large watch, audible 10 metres to the normal ear, was reduced to 35 cm., and for the voice in conversation 3 metres. This increased to 40 cm. for the watch, and for the voice to 4 metres, after the introduction of air into the middle ear according to Politzer's method. The membrana tympani appeared very opaque and white, and a large oval cicatrix ran parallel to the handle of the malleus, posteriorly. There were a few small cicatrices in front of the handle of the malleus. The most important change, however, in the membrane, was the prominent white band of fibrous tissue running from the short process of the malleus, downwards and backwards, above the cicatrix, to the periphery of the membrane.

The treatment first pursued consisted of the application of a borax solution (℥j to Oj) to the nostrils by direct syringing. In the course of ten days the hearing-distance increased to 55 cm., beyond which point the means in use failed to advance it.

On the 3d of May I cut through the aforesaid band of fibrous tissue. The wound bled more than in the previous case, the hemorrhage amounting to several drops. There was no immediate increase in the hearing-distance, and the patient experienced some pain during the ensuing evening. This was followed by slight local redness at the point of incision, which disappeared entirely in two or three days. In eighteen days from date of operation the hearing-distance had increased to 70 cm. for the watch, and for the voice eight paces. In thirty

days the hearing-distance had reached one metre for the watch, and for spoken words ten paces.

This case I have still under observation, and although the woman is in a humble condition of life and is lactating, she is greatly improved.

The following case demonstrates the advantage to be derived from *paracentesis membranæ tympani* in the suppurative stage of otitis media acuta. Gruber has within the last two years drawn the attention of the profession to the benefit of this operation, and has delivered several clinical lectures on the subject, the most important of which have been published in the *Medical and Surgical Reporter* for June 8, 1872, and in the *Pester Mediz.-chirurg. Presse*, 8 Jahrgang, 1872, where the indications for, and the method of performing the operation are fully explained. Great caution must be exercised in making the diagnosis of a collection of exudation behind the membrana tympani, and the point of incision, when we have concluded to perform the operation, should be in the postero-inferior quadrant of the membrane.

The great advantages in this operation are that *we choose* the point of exit for the collection of exudation which lies behind the membrane, and prevent the spontaneous formation of a large perforation, with its attendant disposition towards a chronic stage.

In the following case the good results of the operation are seen.

It was performed upon a healthy mechanic, thirty-nine years old, on the 17th of last May. He had been exposed during the warm period in May to the direct rays of the sun, had been greatly heated, and had allowed himself to cool rapidly. On the 14th of May he felt great pain and deafness in left ear. The hearing-distance was reduced to 1¼ metres for the large watch already mentioned in the previous cases. The membrane was greatly infiltrated, and the malleus had become invisible. The Eustachian tubes were pervious on each side. I ordered the application of two leeches on the tragus, and rest.

Three days later, I saw the man again. The pain had increased; the membrana tympani was forced outwards, especially at the postero-superior quadrant, by a collection of exudation.

Paracentesis was therefore performed at the postero-inferior quadrant, and the pain was instantly relieved. Upon exercising the Valsalvan method of inflating the tympanum, a large drop of pus the size of a pea was forced through the opening in the membrane, and the hearing-distance increased to nearly its normal standard.

By the next day the wound had closed, the pain had not returned, and the hearing was normal.

In this case, by performing paracentesis of the membrana tympani at the right time, the patient escaped a continuance of pain, and the spontaneous opening of the membrane at a less favorable point than the one chosen for the operation.

The postero-inferior quadrant of the membrane is selected as the point for paracentesis, because the simple act of blowing the nose, on the part of the patient, forces the exudation backwards, and gravity tends to carry it downwards; the two forces insuring a complete emptying of the fluid contents of the cavity of the tympanum, if an opening in the membrane exist at the postero-inferior segment.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROF. JOSEPH PANCOAST.

Reported by FRANK WOODBURY.

EPITHELIOMA OF THE HAND.

A HALE old gentleman of 71 years exhibited a growth in the skin of his left hand over the extensor tendons of the ring and middle fingers. It had first attracted his particular attention about six months before, when it was the size of a small pea, and rather dark-colored. He thought at the time that it was a wart, but it steadily increased in size, and became the seat of a slight, burning, stinging pain. The application of nitrate of silver was made, without checking the disease, which at the date of his appearance at the clinic (Jan. 13) had attained the size of a silver half-dollar. The tumor was movable, tender on pressure; its surface was hard, rough, dry, and dark-colored, and projected from the surrounding skin, encircled by a border of inflammation. There was no hereditary tendency to cancer, and he knew of no attributable cause for the disease.

This affection is non-malignant. Its action, at first, was confined to the sub-epithelial surface of the skin, but it has now involved the entire structure of that tissue. From the mobility of the tumor we see that it has not extended below the skin so as to involve the sheaths of the tendons. It is a disease of advanced life, showing itself most frequently in the integuments of the face and back of the hand, and rarely exhibiting itself before the fortieth or fiftieth year. It is sufficiently common in both sexes.

There are two ways of treating this affection: by the use of caustics (the best of which in such cases is the chloride of zinc), and by excision. Where the epithelial growth is yet small, or occurs in numerous points, as it often does, it is best to rub or even scratch away the dark crust, and apply to the surface a half-saturated solution of the chloride of zinc, afterwards lightly covering the part with an ointment of oxide of zinc and calomel. If hairy parts are involved, as the eyebrows or temples, it will be necessary, as in sycosis, to pull the hairs before the zinc wash is applied. But when the patch is single, and is disposed to spread into the skin rather than rise into a scab, excision of the spot, including the whole substance of the skin, is the best. I usually draw the edges of the wound together with a fine silk suture; but on the sides of the nose, especially at the upper part where they are apt to come, this cannot be done. I then content myself with letting the wound heal up under cold-water dressing or a solution of sulphate of zinc, gr. j to the ounce of water.

To this case of cancer of the hand the caustic, from the comparatively large size of the cancerous spot, is not well suited. Not being able to limit its action, it might strike too deep and involve the thecæ of the tendons, which, as the skin moves over them, you see, are now free, and thus render the fingers after the cure permanently lame, by preventing the tendons from sliding in their sheaths.

The operation was then performed by including the mass between two elliptical incisions, carried at once through the skin. The isolated skin and tumor was

then seized at one end with a strong pair of forceps and torn away without the need of any dissection, exposing the outer surface of the white, glistening sheaths of the extensor tendons at the bottom of the wound. The edges of the wound were then partly brought together, without making much tension of the skin, with two or three sutures, and the part dressed with ung. zinci oxidi, and covered with cloths wet with cold water. The hand and forearm were directed to be placed in a splint and elevated in a sling, keeping the fingers extended.

Jan. 17.—Very little inflammation resulted from the operation; some œdematous puffiness existed around the wound, which Dr. Pancoast relieved by puncturing with a small bistoury. A light poultice of boiled starch, inclosed in a linen bag, was directed to be laid on the wound. When the wound began to cicatrize, it was dressed with the following ointment:

℞ Cerat. plumbi subacetat., ℥ss;
Ung. hydrarg. oxidi rubri, ʒj;
Vini opii, ℥iss.

A few days subsequently, the wound healed, and the patient returned home relieved.

RECURRING CANCER FOLLOWING OPERATION FOR EPITHELIOMA.

In this patient, a man 40 years of age, an epithelioma of the lower lip had been removed by a triangular incision some six months before. The wound had entirely healed after the operation. A malignant growth soon began to show itself as an ulcer on the surface of the lip and on either side of the cicatrix, involving all the proper structure of the lip down to the bone. An enlarged lymphatic gland could be felt under the jaw, which had begun to take on cancerous degeneration, the cancer-cells having probably been carried there by the absorbent vessels from the seat of the disease.

Ether was administered, and the patient placed in a sitting posture to prevent the blood from running into his mouth. The surgeon then carefully removed every particle of the diseased structure, and scraped the bone, at the same time removing the enlarged gland, which he cautioned the class never to fail to do early, when it first makes its appearance, whether during the progress of the disease, or following an operation for removal of cancer of the lower lip. He invariably directs the patient, after one of these operations, in case he should find, under the lower jaw, a round tumor, like a marble, that cannot be dissipated by frictions with soap liniment, to go at once to a good surgeon and have it taken out. The way of removing it is very simple; sink a tenaculum into the gland, through the skin, cut down to the gland, turn it out from the wound by pushing down the handle of the tenaculum, and pick away the gland. If the operation is delayed until the gland becomes adherent to the periosteum, it will be found too late to prevent the extension of the malignant action to the bone.

The edges of the wound were approximated by the hare-lip suture. A good result was obtained from the operation, and the wound healed shortly afterwards. The patient was warned of the liability of the disease to return, and told to apply for assistance on the first evidences of its reappearance.

A CASE OF VARICOCELE, OR RATHER CIRSOCELE.

A young man of nineteen years appeared at the clinic, January 10, with a varicocele on the left side. There was a history of onanism connected with the case, and he was pale and anæmic, with some consequent cardiac disturbance. He complained of constant dragging pain in the testicle, which he alleviated to some extent by the use of a suspensory; also of pains in the small of his back, neuralgia shooting down the outer part of his thigh, of feeling gloomy and depressed, and general unfitness for active exertion. The veins of the left spermatic cord were large and convoluted, forming a large tumor at the back part of the pendulous scrotum. The testicle was shrunken in size. This is a common result in such cases. The enlarged and convoluted valveless veins of the cord obstruct the return of blood, and thus, by producing a remora, indirectly diminish the arterial supply of the organ. This view seems to be sustained by the fact that, when the veins are properly obliterated by an operation, the testicle becomes better nourished, and soon regains its proper size. Varicocele is usually found only on the left side. This has been explained by the fact that the left spermatic vein empties at nearly a right angle into the left renal vein, while the right opens by an acute angle into the vena cava. The left also passes behind part of the sigmoid flexure of the colon, where fecal accumulation is common, and it is thought that, at times, this might interrupt the current.

This disease, like varicose veins of the legs, is often hereditary. I have several times seen varicocele existing on the right side, but never unless it was accompanied by a similar affection on the left.

The tumor formed by this affection may be distinguished from inguinal hernia by placing the patient on his back, and elevating and pressing the tumor, when it will slowly disappear. Now, if the finger be placed over the abdominal ring and the patient allowed to resume the erect posture, the swelling will return, which would be impossible in hernia. The physical characters also are dissimilar; the varicocele feels like a convoluted mass of worms, movable over each other, while a hernial tumor is more consistent and rounded.

To this enlargement of the veins of the cord (corpus pampiniforme) the term cirsocele is most appropriately applied. The term varicocele should be restricted to cases in which, in addition to the cirsocele, there is a varicose enlargement of the superficial veins of the scrotum, often connecting by intermediate veins the two corpora pampiniformia together. This is an important practical distinction, for, in the latter case, a modification of the operation is necessary to a cure.

In mild cases, accompanied by little inconvenience, there is not much required in the way of treatment; a suspensory bandage may be worn to support the part, and local applications of cold water made night and morning, and if the health is feeble, a course of tonics, with the shower-bath. In severe cases, relief can only be obtained by an operation, and this, if properly done, is unattended with much risk. It is not worth while to pass here in review the various operative procedures that have been devised for the cure of this disease. This much, however, I will say, that you must not do any cutting operation to expose the veins in order to ligate them: such a course would not unlikely be followed by fatal phlebitis.

The true indication in the operation is to strangulate the veins by a subcutaneous ligature, which shall be all the time under the control of the surgeon, without interfering with the integrity of the vas deferens. By introducing the button-operation, which I did more than twenty years ago, I have reduced the process to such a degree of simplicity that it may be considered almost perfect. The implements required are few: a very strong waxed ligature of saddler's sewing-silk or brown thread, a flat needle, rather dull at the point and not cutting at the edge, or a common darning-needle (either of which may be passed between the veins without cutting them and producing ecchymosis), and a metal disk, an inch and a half in diameter, pierced with two holes an eighth of an inch apart, with a little saddle-back soldered on between the holes, so that the edges of the orifice will not cut the ligature as it is tied, and thus impair the success of the operation. The veins should be full of blood at the time of the operation, and

the hair covering the part clipped away or shaved off. The first and most important step in the operation is to isolate the vas deferens with its attendant artery and veins from the other constituents of the cord, and hold it back with the thumb and forefinger of the left hand. This is generally easily done. But sometimes it is not. Instead of lying in its usual place at the back of the cord, and being readily distinguishable by its wiry feel, it may be found in the centre of the mass of veins, or lying on the front or sides of the cord. Sometimes there is met a vein which has undergone spontaneous obliteration, which resembles somewhat, to the touch, the vas deferens itself. Until the vas deferens can be *satisfactorily isolated*, the operation should not be proceeded with, as the inclusion of the vas deferens with the veins in the ligature would result in the suppuration and destruction of the testicle. A certain sensation approaching sickness, caused by pressure on the duct, will sometimes enable us to distinguish it from an obliterated vein, especially in cases where from the wasting of the testicle the duct itself is small and atrophied.

The second stage of the process is to pass the needle, armed with the thread, behind the mass of veins, and between them and the vas deferens. I consider this so important a step, that I do it before I put the patient under an anæsthetic. I make him sit well over the edge of a bed, or stand up; then, holding the vas deferens well back, I gradually work the needle through in front of it, piercing the skin on both sides, but sliding the needle up under the skin at the place of exit, so as to bring the two orifices of exit and entrance as near together as I can. I let the needle stand transfixed in the wound, and again examine to see that the vas deferens is safe behind the needle.

Third stage. I then lay the patient down, put him into a state of slight insensibility with chloroform or ether, and push the needle through, bringing the ligature with it. Then I enter the needle again at the place of exit, push it under the skin, and in front of the cord, to the place of entrance; draw the loop of thread eight or ten inches farther through the wound, so as to get a strong part of the ligature that could not be cut by the second passage of the needle. I then pass the two ends of the ligature through the holes in the plate, and tie them down in a bow-knot as firmly as possible. A subcutaneous ligature is now tightly tied round the whole corpus pampiniforme,—there is no fear of including too many veins. There will always be veins and arteries enough attached to the vas deferens to maintain the circulation in the testicle. In truth, we often find that the tying of the ligature excites a contraction in the walls of the veins below it, and they empty themselves of their blood probably by the deferential veins. Included in the ligature we of course have the nerves of the cord. The strangulation of these is apt to lead to dysuria. To obviate this I give the following mixture:

℞ Mist. neutralis,
Aquæ camphoræ,
Sp. mindereri, aa ℥ij;
Morph. acetat.,
Ant. tartarizat., aa gr. j;
Sp. ether. nitrosi, ℥j;
Sacch. alb., ℥j. M.

Sig.—A tablespoonful every hour till sleep and perspiration are produced.

Every third day I untie the bow-knot and re-tighten the ligature, giving the patient a whiff of chloroform to save him pain. On the third tying no pain will be felt. At the end of twelve days, the ligature may be untied or cut on the plate and taken away. The veins will be obliterated; sometimes the ligature will come away in a loop from ulcerative absorption.

The obliteration of the veins takes place first by some coagulation of blood in them, followed by a deposit of lymph in their cavities, which causes them to form a lump below the ligature the size of a walnut ordinarily, which ultimately disappears by absorption, leaving the previously enlarged veins converted into fibrous cords. In two cases only out of the great numbers upon which I have operated have I seen a lump form on the cardiac side of the ligature, and both of those cases were attended with a little local peritonitis. They did well, however, in the end.

In true varicocele, when there are large superficial veins establishing a communication between the venous systems of the two testicles, it is necessary to tie each large vein by passing a ligature under it with a delicate needle. Unless this be done, if the veins are large, the circulation may return in the ligated vessels.

The operation was performed in the case before the class in the manner above described. It proved one of the exceptional cases in which there was an obliterated vein simulating the vas deferens, and in addition the true vas was found in front of the mass of veins, instead of behind, as is generally the case.

Jan. 13.—The patient was again brought before the class, in order to have the ligature tightened.

Jan. 17.—The same process was repeated in presence of the class. On the 24th, the ligature was removed. The patient returned home a few days after, completely cured. He was directed to cover the orifice, which had been under the plate, with lint spread with compound Elemi ointment until it ceases to discharge; the other orifice made by the needle having healed by first intention. He was also advised to wear a bag-truss until the tumor made by the obliterated veins and diffused lymph around them was reduced by absorption.

Effects of Pneumothorax and of the Consecutive Effusions in the Phthisical (Dr. A. Czernicki, *Gazette Hebdomadaire*, July 19, 1872).—In the recent discussion on thoracentesis at the Académie de Médecine, M. Pidoux quoted the opinion of Laennec, that in cases of irregular phthisis, so long as there was effusion, the diathesis remained stationary, but resumed its development when this disappeared. M. Hérard defended this view, asserting that in some cases the pressure due to the effusion might hinder the development of tubercle. M. Czernicki cited two instances which he thought gave a complete confirmation to this opinion. Two tuberculous patients, in the third stage of the disease, and *in extremis*, were attacked with pneumothorax, followed by effusion. This incident, generally so justly dreaded, manifestly delayed the diathesis, and life was prolonged in both these cases to a period beyond what could have been hoped for.

These two cases were detailed with much care. M. Czernicki thought that the effused liquid compressed the walls of the cavities, producing a local anæmia unfavorable to pulmonary suppuration and to bronchitic hypersecretion. The purulent expectoration diminished; the fever, sweatings, diarrhœa, and dyspepsia disappeared, because of the healing of the pulmonary lesion, which was demonstrated by post-mortem inquiry. M. Czernicki therefore advocated, at least in certain cases, the abandonment of thoracentesis in the effusion consequent upon pneumothorax in tuberculous patients.

Subcutaneous Injections of Corrosive Sublimate in Syphilis (*Dorpat. Med. Zeitschr.*, ii. 3, 193).—E. Harsen recommends, in syphilis, the subcutaneous injection of a solution containing in each injection $\frac{1}{3}$ gr. corrosive sublimate and $\frac{1}{10}$ gr. sulphate of morphia. The advantages of this combination are: first, little or no pain in its use; secondly, no induration at the point of injection.

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EDITORIAL.

WITH the present number the *Philadelphia Medical Times* enters upon the third year of its existence. We feel assured that the change from a bi-weekly to a weekly issue will be found to be to the advantage of our readers, and we trust it will be so looked upon by them. With the improvements which experience has shown to be desirable, our aim will be, as heretofore, to offer, in every number, valuable original matter, and a choice selection of current medical literature; to take a high stand upon all ethical points, to aid in the correction of abuses wherever they may exist within our province, and to note all matters of professional interest. We shall be wholly clear of attachment to cliques, schools, or factions, recognizing only the highest interests of the profession and the public, and putting aside all personal or private considerations. Our columns will always be open to those who wish to express their views on any subject coming within our legitimate sphere.

We trust that our labors may meet the approval and encouragement of the profession, and are the more confident, since we have received liberal promises of aid in the way of contributions from able pens for the coming winter.

PROPERTY IN PRESCRIPTIONS.

A QUESTION has recently been raised afresh as to who has the right to a physician's prescription. Does it belong to the writer, to the patient who pays for it, or to the druggist who puts it on file after dispensing the medicine in accordance with it?

It seems to us that the matter is easily settled by common sense. A physician, having examined a patient, writes directions for the putting up of the remedies he considers suitable under the circumstances; the apothecary follows his instructions, without responsibility except to conform to them; the patient takes the label as his guide, and does as he has been advised. Supposing all this to be done, the physician evidently has no more authority over that prescription, since it is the apothecary's voucher for his preparation of the medicine, and, in case of anything going wrong, would be his only safeguard; the latter has none, for it was merely an instruction to him to compound certain drugs; the patient can have none, for the circumstances under which it was given, and which he is not supposed to appreciate, may have wholly changed before six hours have elapsed from the writing of it.

The practice in London, and perhaps all over England, and on the Continent for aught we know, is for the druggist to make and retain a copy of the prescription, returning the original to the patient.

We are well aware that it is the custom here for patients to send back their phials for renewal, and for druggists to refill them, without the sanction of the physician whose name is appended to prescription No. 12345, or whatever it may be, being obtained. But this is done at their own risk; and should salivation, narcotic or irritant poisoning, or any other untoward result, ensue upon the taking of medicine so renewed, the physician's skirts would be clear. It is also the custom, and a very bad one, for patients to say to their friends, "Dr. So-and-so gave me a prescription which I am sure would do you good; I will give you the number of it:" we have known half a dozen persons to obtain medicine in this way, without any certainty that their cases were analogous to the one for which the remedies were ordered.

Sometimes, to save trouble, physicians who have occasion to make frequent prescriptions of the same compounds will give numbered formulæ to certain druggists, and order them by numbers or by special designations. But this does not change the principle. If a surgeon examines a case of disease of the eye, and writes a prescription for "collyrium adstringens," or for "tonic No. 3," any apothecary who has the corresponding formulæ can follow that direction, as if the ordinary terms were used. It is merely an instruction to him to furnish certain remedies adapted to the existing state of the patient.

This is the great principle for which we contend: that a prescription given in any case is not a thing sold and made over either to patient or to druggist, but a direction supposed to be based on that understanding of the morbid conditions which the physician alone has; and since these conditions may or may not exist at a later stage or in another case, it is at the druggist's risk that he recommends, or at the patient's risk that he orders, the filling of any prescription without direct medical sanction.

THE RECENT INTERNATIONAL CRICKET-MATCH.

ARE we a physically degenerate race? It seems to be thought by many that such an inference may fairly be drawn from the fact that our oarsmen and cricketers have hitherto been over-matched by those of the mother country. And no doubt, to a certain extent, it is so; but there are circumstances to be taken into the account, which very much lessen the apparent gravity of the situation for us.

Aside from the influences of climate and of habits of living (we allude now to diet, social customs, etc.), there is the important fact that the Englishmen who have been pitted against our men were differently placed, in that they could give their whole energies of mind and body to excelling in cricket or in rowing. Voltaire's trees, he said, grew well because they had nothing else to do. Our young men make the cricket-bat or the oar a secondary matter; they reserve their powers for pursuits of graver moment.

Then, again,—and this seems a less favorable consideration,—our national temperament is more excitable and mercurial, more nervous and anxious, than the English. Business and pleasure are alike, in this country, pursued with a feverish haste. It is to be hoped that with increasing years this tendency may subside, and that as public affairs become more and more settled, men may acquire a cooler and steadier tone and habit of mind.

During the war of the rebellion, those who had occasion to see our armies could not but remark the wonderful effect of an out-of-door life, with continual exercise, upon our officers. They gained a physical development, and a cool and manly mental tone, to which many of them had previously been utter strangers. This lesson should not be lost. We are only degenerate so far as we allow excitement and luxury to obtain sway over us.

INTRODUCTORY LECTURES.

WE are informed that the introductory lecture to the coming session of the Medical Department of the University of Pennsylvania will be delivered by Prof. Carson, on Monday, October 7, at 12 M., and will be a eulogy on the late Prof. Samuel Jackson.

On the same day, at 8 P.M., the introductory to the winter session of the Jefferson Medical College will be delivered by Prof. J. M. Da Costa, who will take occasion to pay a tribute to the memory of his predecessor, the lamented Dr. Samuel Henry Dickson.

LECTURE BY DR. BROWN-SEQUARD.

THIS well-known physiologist will deliver a lecture on "The Origin and Signification of the Symptoms of Brain Disease," in the amphitheatre of the University of Pennsylvania, on Thursday evening, Oct. 10, at 8 o'clock. The profession are invited to attend.

CORRESPONDENCE.

MR. EDITOR—DEAR SIR,—I desire to call the attention of those readers of your journal who have not seen my brochure on sun-stroke to the fact that the notice of it in your last issue is largely made up of a series of careless misconceptions. I do not propose to show this in detail: *le jeu ne vaut pas la chandelle*. I will merely cite two instances, which follow one another almost consecutively in the beginning. Your reviewer says that I "dismiss the idea that the 'cardiac cases' die from coagulation of the myosine of the diaphragm, by one experiment;" whereas my real chief reason, as distinctly stated, is *clinical, i.e.*, because every observer who has seen such cases says that the *men die of syncope* through *sudden arrest of the heart's action*, not through the respiration.

Again, my critic says, "Here the grave question arises, Can we abstract heat from the deeper tissues so immediately as to immediately cure?—though, by the way, THREE *out of the* FOUR *animals so cured died shortly afterwards*." In truth, but a SINGLE *experiment* was made as to this point; and in that the animal did not die at all. (See page 74.)

The only point of force in the notice, I think, is in regard to this local abstraction of heat by external application. It did not occur to me that any would doubt it, or I would have determined the point experimentally. I find, however, in my note-book, an unpublished experiment which has direct bearing on the matter, proving that at least in these small animals it can be done. I heated the body of a pigeon locally, and abstracted heat locally from its head. At the moment of death, the centre of the brain was at 88° F., the rectum at 113° F. Yours, etc.,

H. C. WOOD.

1706 CHESTNUT ST., PHILA., Sept. 26, 1872.

SMALLPOX IN CHILI.—A letter received in San Francisco, September 24, from the United States Consul at Callao, states that the smallpox prevails in an epidemic form at many of the seaport towns on the coast between Valparaiso and Panama. The character of the disease, the writer says, is more pernicious than the ordinary smallpox, and much more destructive to life.

The letter continues: "In one hospital at Santiago, Chili, out of fifty-eight patients entered in one week, fifty-six died; and, as there are eight or ten such hospitals in that city, you can conceive its destructiveness.

"The disease is making its way steadily to Callao."

PROCEEDINGS OF SOCIETIES.

INTERNATIONAL OPHTHALMOLOGICAL CONGRESS.

THE following is an abstract of the scientific work of this body at its recent session:

At 11 A.M., Thursday, August 1, the Congress assembled in the library of the College of Physicians, Trafalgar Square. The walls were hung with the portraits of the old English celebrities in medicine. Harvey's picture hung behind the President, and above were his dissections of the blood-vessels of the human body.

Mr. Critchett welcomed, in French, the members of the Congress. He named the officers of the meeting, viz.: President, Prof. Donders; Vice-Presidents, Prof. Williams, of Boston, and Prof. Warlomont, of Brussels; Secretaries, Mr. J. Soelberg Wells and Prof. Zehender.

The Congress then listened to the following papers and communications:

THURSDAY.

Dr. B. Joy Jeffries (Boston), "On the Use of Ether in Ophthalmic Surgery."

Dr. De Wecker (Paris), "On the Surgical Treatment of Optic Neuritis by Opening the Optic Nerve-sheath."

Dr. Warlomont (Brussels), "Sympathetic Ophthalmia."

Dr. Bader (London) exhibited a case of pannus treated by sulphate of quinine; also a case of conical cornea treated by Graefe's method.

Mr. Critchett (London) exhibited another patient with conical cornea, also operated on by Graefe's method.

Dr. Taylor (Nottingham), on "Extraction of Cataract."

Dr. Rosier, on "Proposed Alterations in the Operation of Linear Extraction of Cataract."

Dr. Warlomont (Brussels), on "Proposed Changes in Cataract Operations by Extraction through the Cornea."

Dr. Hansa (Copenhagen), on "Forty Cases of Extraction of Cataract by Liebreich's Method."

Dr. Dudgeon, "On the Mechanism of Visual Adjustment." [This paper was objected to by the President, as containing nothing new from what he (Prof. Donders) had already published.]

Dr. Woinow (Warsaw), on "Accommodation and Refraction in the Eyes of Children."

Dr. Carreras (Spain), on "Cysticercus within the Globe."

Dr. Galezowski (Paris), on a "Case of Aneurism of the Central Artery of the Optic Papilla."

FRIDAY, AUG. 2.

Dr. Vose Solomon, on "Section of the Ciliary Muscle for Myopia."

Dr. Carter (London), on a "New Form of Demonstrating Ophthalmoscope, and a New Form of Perimeter."

Dr. Hogg (London) showed another form of divided lens to use in the same method of ophthalmoscopy.

Dr. Brettaner (Trieste) exhibited a series of fields of vision drawn from Förster's perimeter.

Dr. Wolfe (Glasgow) reported eighty-two cases of traumatic cataract on which he had operated.

Dr. Pagenstecher (Wiesbaden) exhibited drawings for an "Atlas of Pathological Histology of the Eye."

Mr. Taylor (Nottingham) showed a patient operated on by him for cataract by the method proposed in his paper previously read.

Dr. Zehender (Rostock) described a case of congenital malformation of the eyes in a child. The specimen and drawings were exhibited.

Dr. Robertson (Edinburgh) described a case of Irideremia.

Dr. Doijer (Leyden) related the case of a medical student with total absence of the iris from its position.

Dr. Galezowski (Paris) spoke of four cases of the same peculiarity.

Dr. Williams (Cincinnati), papers on "Ulcus Corneæ Serpens treated with Carbolic Acid," and on the "Treatment of Chronic Iritis by Warm Poultices."

Mr. Cooper (London), on "The Ophthalmoscope as an Optometer in Astigmatism."

Dr. Javal (Paris) showed how the same ideas had been carried out on the other side of the Channel.

Dr. Jeffries (Boston), on "Test Types and Visual Acuity."

Dr. Oldham, on "An Improved Form of Ophthalmoscope."

Dr. Schröter, on a "New Form of Binocular Ophthalmoscope after Dr. Coccius'."

Dr. Samelson (Manchester), on "Diphtheritic Conjunctivitis."

Dr. Lobo (Rio de Janeiro), on "Distances between the Anterior and Posterior Surfaces of the Crystalline Lens and Cornea."

Dr. Noyes (New York), on "Muscular Asthenopia and its Complications."

Dr. Williams (Boston) here, in behalf of the American Ophthalmological Society, invited the International Congress to visit the United States at its next meeting in 1876, the Centennial Anniversary of American Independence. This invitation was finally accepted.

Thursday evening, a conversazione took place at Mr. Bowman's. Optical and ophthalmic instruments were exhibited, also very many ophthalmoscopic pictures.

Friday evening, a soirée took place at Mr. Critchett's house.

SATURDAY, AUG. 3.

Mr. S. Watson (London) exhibited his plan of applying cold to the eye by water in small rubber bags; he also read a paper on Dermoid Cysts.

Mr. Teale (Leeds), on his operation for Symblepharon; two patients shown.

Dr. Wolfe (Glasgow) explained his own method for this operation.

Dr. Javal (Paris) presented the report of the committee of the Congress, recommending metrical and decimal series in trial-glasses.

Dr. Schmidt, paper on the "Distention of the Optic Nerve-sheath in Optic Neuritis."

Dr. Green (St. Louis) read a paper on test types modified from Snellen's.

Mr. Power (London), paper on "Transplantation of the Cornea."

Dr. Williams (Boston) showed his needles for stitching the cornea in cataract operations.

Mr. Bowman (London) spoke of the following operations: 1st, for precising and placing an artificial pupil; 2d, for removal of dense papillary membranes; 3d, for double iridectomy on the same eye by two knives at the same time; 4th, for conical cornea, by trephining the cornea and other methods.

Dr. Quaglino (Naples) spoke on "Sclerotomy in Glaucoma."

Dr. ——, on "Cutting the Sclerotic for Glaucoma."

Dr. Noyes (New York) exhibited eye-specula, and showed his form of register to be used in writing out cases.

Dr. De Wecker (Paris) then proposed that, the hour of three o'clock having arrived, the Congress listen to Prof. Donders, which the members did with the greatest attention. He spoke of and exhibited an instrument for measuring the distance between the lens and cornea. He then criticised and exploded Förster's idea that accommodation will take place when the lens is absent (great applause). He also spoke on traumatic keratitis, and in reference to the pus-cells and the corneal corpuscles.

The *Compte-Rendu* will appear in English, and will contain some other papers besides those alluded to.

REVIEWS AND BOOK NOTICES.

FUNCTIONAL DISEASES OF THE RENAL, URINARY, AND REPRODUCTIVE ORGANS, WITH A GENERAL REVIEW OF URINARY PATHOLOGY. By D. CAMPBELL BLACK, M.D., L.R.C.S. Edin., Member of the General Council of the University of Glasgow, etc. etc. Philadelphia, Lindsay & Blakiston, 1872. Pp. 300.

This volume—the expansion, as its author tells us, of a proposed article for the *British Medical Journal*—is evidently written by a gentleman of considerable practical experience, deep thought, and extensive reading.

The work begins with a disquisition upon the conditions affecting the secretion of urine, with special reference to suppression, in which those all-important bases of exact medical science, the pathology and morbid anatomy of disease, are by no means neglected. Following this part, about seventy pages are devoted to a review of the varieties, causes, and management of retention of the urine after its secretion; and the remainder of the book is chiefly occupied with excellent investigations into the pathology and treatment of nocturnal enuresis, spermatic incontinence, and the allied subjects of masculine impotence and sterility, all of which, the author most judiciously maintains, have been quite long enough abandoned by the regular profession to designing charlatans, who not only take advantage of the natural anxieties which assail sufferers from sexual disorders, but systematically aggravate the apprehensions of their victims, from base pecuniary motives. The style of the author is clear, easy, and agreeable, although a few careless infelicities of expression mar its general perspicuity. On page 150 we note that the author exhibits a misapprehension of the mode by which white blood-corpuscles wander out through the vascular walls. Nevertheless, on the whole, his work is a valuable contribution to medical science, and, being penned in that disposition of unprejudiced philosophical inquiry which should always guide a true physician, admirably embodies the spirit of its opening quotation from Prof. Huxley: "We live in a world which is full of misery and ignorance; and it is the plain duty of each and all of us to try to make the little corner he can influence, somewhat less miserable, and somewhat less ignorant, than it was before he entered it."

GENERAL AND DIFFERENTIAL DIAGNOSIS OF OVARIAN TUMORS, WITH SPECIAL REFERENCE TO THE OPERATION OF OVARIOTOMY, ETC. By WASHINGTON L. ATLEE, M.D. Philadelphia, J. B. Lippincott & Co.

How the times change, and we with them! A few years ago, ovariotomy was under the ban both here and abroad. We well remember those dog-days of incandescent controversy and fierce bickerings,—days in which the ovariotomist was almost tabooed from polite society, and hardly on speaking terms with his professional brethren. But here before us lies a work upon this subject of discord, which, we venture to predict, will be heartily welcomed by the whole body of English-speaking and English-reading physicians. And let us here remark, to the author's credit, that we can find in it no trace of rancor at past grievances, no hint of self-satisfaction at his own consummate triumph.

The book is a good one, both in style and in matter. It is written in plain unpretentious English, with none of those sonorous triplets and rhythmic euphuisms which flounce and trick out the ambitious literature of the day. As regards matter, from title-page to colophon we have hardly turned a leaf without finding something new, something interesting, something of value. Who, for instance, would presuppose that after the removal of both ovaries the catamenia could still continue, and that the sexuality of the woman could remain unimpaired? But case upon case is given to substantiate these curious facts. Spencer Wells, indeed, relates that after such a wholesale extirpation one of his patients became actually aggressive. Where are our physiologists? What are they at? Here is matter for them to look into! Further, Dr. Atlee gives two cases in which, one ovary having been removed, the other became so diseased as to require repeated tappings, followed ultimately by its removal; and yet each woman gave birth to a child. Truly, as an ex-Master of the Rotunda Hospital used, with a rich brogue, to say, "The spermatozoon is a varry inseenuating leetle deevil."

Much light is thrown upon the diagnosis of ovarian tumors. For their fluid contents he claims certain microscopic characteristics which are diagnostic, and, therefore, insists upon a tapping as a sure method of clearing up any obscurity. What specialist has not puzzled his brains in distinguishing between a fibrocystic tumor of the womb and a cystic tumor of the ovary? But Dr. Atlee supplies us with a ready test: "In the former affection, the evacuated fluid, being true liquor sanguinis, so coagulates upon cooling as to cling to the cup in which it is contained, even when inverted; whereas the fluid of an ovarian cyst remains quick and uncoagulable." It is always of great importance to know whether a cyst is in the ovary, or in the broad ligament; for the one is curable, the other not, without an operation. Here again our author furnishes us with a trustworthy method of diagnosis, which our limited space forbids us to transcribe. He explains the manner of discovering adhesions; gives the latest views upon the pathology of these tumors; shows how, when, and where to tap, and, in one word, throws out innumerable priceless hints, which alone would be the making of an author.

The work would certainly have been more complete had he collated, besides his own, the experience of other master-workmen in the same specialty. As a counterbalance, however, with rare candor and courage he tells his own mistakes, and also, it must be confessed, those of his friends. Among these we unexpectedly came across one of our own; but the rack itself would not extort from us any clue leading to the chapter or page.

After all this praise, it may seem like treachery to find fault. But, although we own to a grudge for the perpetuation of our unlucky blunder, we protest that we shall not follow the example of that son of Zeruiah, who said to his foe, "Art thou in health, my brother?" and then smote him under the fifth rib. Reviewers must be impartial; we shall try to be as much so as the circumstances will permit, scrupulously sheathing our thumb-lancet.

The chapter on "Pelvic Tumor and Abscess" is too short, and by no means up with the times. A phantom chapter of just nine and a half lines (we refer the incredulous reader to chap. xv., p. 348) discusses the whole subject of phantom tumors. This miracle of condensation stands unapproachable; in the material world it could have been attained only by a hydrostatic press, or by the pressure of several atmospheres.

The chapter on pathology, and the one on chemical analysis, written respectively, and very ably too, by Drs. Mears and Drysdale, are thrown so awkwardly into the body of the text as to give no clue whatever to the authors. "During the past year," begins the one, "I have had the opportunity, through the courtesy of the author, of assisting at a large number of his operations." The other one is thus introduced: "The great number of fluids removed by Dr. W. L. Atlee from patients laboring under different forms of abdominal dropsy presenting an unusually favorable opportunity for the investigation of these products of disease, I commenced, in the year 1853, their chemical and mi-

croscopical examination." Now, "Who is the first 'I,' and who the second 'I'?" will be the query of the puzzled reader, unless perchance he has done what few nowadays do, read the preface.

We are tempted to break a lance with the author on some far more practical and important points, but, before the bold crest of so tried a knight, we deem discretion to be the better part of valor. "Touch the Hospitaller's shield; he has the least sure seat," cried out the crowd at the tourney of Ashby. This cowardly advice Ivanhoe did not follow, but we shall.

A Nomenclature of Diseases, etc. 8vo, pp. 94. Philadelphia, Collins, printer, 1872.

This pamphlet has the following history: In 1869 a committee was appointed by the American Medical Association to determine what alterations, if any, were necessary to adapt the Provisional Nomenclature of the Royal College of Physicians of London to general use in the United States. This committee decided that a complete revision was desirable, and, in accordance with their views, a new committee was appointed in 1870, whose report was handed in at the meeting of the Association in May last. A minority report, signed by four members, embodied a resolution, which was carried, that the nomenclature and classification, as submitted, should be published in the *Transactions*, and that an edition of one thousand should be printed for distribution to the profession; the question of its adoption being postponed to the next annual meeting.

We commend the examination of this most important subject to our readers.

BOOKS AND PAMPHLETS RECEIVED.

The Science and Practice of Medicine. By William Aitken, M.D. Edin., Professor of Pathology in the Army Medical School. Third American, from the Sixth London Edition, with Additions by Meredith Clymer, M.D. In two volumes, illustrated. 8vo, pp. 1056, 962. Philadelphia, Lindsay & Blakiston, 1872.

On Some Affections of the Liver and Intestinal Canal, with Remarks on Ague and its Sequelæ, Scurvy, Purpura, etc. By Stephen H. Ward, M.D. Lond., etc. 8vo, pp. 260. Philadelphia, Lindsay & Blakiston, 1872.

On Cerebria and other Diseases of the Brain. By Charles Elam, M.D. Lond., etc. 8vo, pp. 142. Philadelphia, Lindsay & Blakiston, 1872.

General and Differential Diagnosis of Ovarian Tumors, with Special Reference to the Operation of Ovariotomy, and occasional Pathological and Therapeutical Considerations. By Washington L. Atlee, M.D. With thirty-nine Illustrations. 8vo, pp. 482. Philadelphia, J. B. Lippincott & Co., 1872.

The Journal of the Gynæcological Society of Boston. Edited by Winslow Lewis, M.D., Horatio R. Storer, M.D., and George H. Bixby, M.D. Vol. vi., Jan. to July, 1872. Boston, James Campbell, publisher.

New Treatment of Venereal Diseases and of Ulcerative Syphilitic Affections by Iodoform. Translated from the French of Dr. A. A. Izard, by Howard F. Damon, M.D. 12mo, pp. 73. Boston, James Campbell, 1872.

Smallpox: the Predisposing Conditions and their Preventives, with a Scientific Exposition of Vaccination. By Dr. Carl Both. Second Edition. 12mo, pp. 82. Boston, Alexander Moore, 1872.

A Nomenclature of Diseases, with the Reports of the Majority and of the Minority of the Committee thereon. Presented to the American Medical Association at the Meeting held in Philadelphia, May, 1872. 8vo, pp. 94. Philadelphia, Collins, printer, 1872.

GLEANINGS FROM OUR EXCHANGES.

Insanity and Homicide.—In the *Journal of Mental Science* for July, 1872, in connection with a review of the trial of an American, named Minor, for the killing of George Merritt, we find the following remarks on the existing state of the English law as to insanity:

"If a man, knowing in other respects the difference between right and wrong, have the maddest delusion which madness can imagine, and if he do murder, and if no direct connection can be traced by others between the delusion and the murder, then, according to the dicta of English judge-made law, the man may righteously be put to death as an example to other madmen. To absolve him from responsibility, the criminal act must be the 'immediate unqualified offspring' of the delusion. If not, though he would be held incapable of conducting his own affairs, he would be considered answerable for the act. In fact, 'the good old' rule of English law, that an insane person may be a proper object of punishment, is as binding now on English judges as it was generations ago. The influence of the delusion upon the act must be direct and positive; for if an insane person, under a delusion that some one has inflicted an injury upon him, were to kill that person, he would unquestionably be amenable to punishment as a murderer. It is the duty and within the capacity of a madman to know that it is wrong to revenge evil by evil, and that it is right to bless those who persecute and despitefully use him; and if he knows this of a real injury, he must be assumed to know it of an injury which he is under the delusion that he has sustained. The unsound mind, being nowise incapacitated from full healthy function by the disease of which the delusion is a symptom, should entirely isolate its delusion or delusions, just as prudent persons isolate a case of smallpox or other infectious disease, and should not allow it to infect the feelings, thoughts, and acts. With this exception, however, that if the insane person makes a will or does any other civil act to the prejudice of another, under the influence of a delusion that he has been injured by him, his delusion will be assumed to have infected his conduct, and his act will be voided by law. He may make a will under the influence of bad feeling springing from a delusion, and he will suffer the penalty of having his act declared null; but if he does murder under the influence of an exactly similar feeling, springing from an exactly similar delusion, his act will be declared valid, and he will get the benefit of being hanged."

Cooling of the Body under the Action of Alcohol.—The following record is derived from the same source:

"MM. Lallemand, Perrin, and Duroy mention the lowering of nearly a degree (centigrade) in the temperature of animals submitted to the action of alcohol. Edward Smith points out also a cooling of the body in the same circumstances; but already, in 1848, MM. Duméril and Demarquay had pointed out a considerable decrease in temperature in animals submitted to the action of alcohol; and in one of their experiments, they were able to record, after three hours, a difference of 9.6° in a dog to which they had administered 125 grammes of alcohol; that is, a decrease in temperature more marked than when ether or chloroform has been employed.

"We ourselves, in an experiment, have observed as much as 3.5° of decrease in animals plunged into drunkenness through alcohol, but not so affected as to be killed thereby.

"Clinical observation also furnishes us with examples not less remarkable of cooling of the body under the influence of alcoholic drinks. I am indebted to the courtesy of M. Dugnet, senior Clinical Professor of the

Faculty, for the account of a case of alcoholic drunkenness, in which the cooling was carried to its utmost limits. This was a woman, aged thirty-eight years, of vigorous constitution, who, on 3d March, 1869, at ten o'clock in the morning, was brought to La Pitié, St. Charles ward, under the charge of M. Peter. This woman, after having the evening before drunk freely, wandered into the country, to near Ivry. She passed the night under a cold and heavy rain; was observed wandering about, at three o'clock in the morning, by some country laborers. At six o'clock she was found lying in a ditch, cold and insensible.

"On arrival at the hospital, coma was complete, coldness of the surface considerable, sensibility almost *nil*, the pupils contracted, the limbs exhibited slight, slow, convulsive movements, resembling contortions, or rather a kind of *repletion* in every direction; the force displayed in these movements was considerable; the pulse was full, and regular, but slow. The temperature, carefully taken, at the moment of the visit, equalled 26° (cent.) in the axilla and vagina.

"The patient, placed in bed, was heated by means of warm bottles; she had also stimulating drinks. By degrees the convulsive phenomena ceased, the temperature of the body rose insensibly, and the patient recovered consciousness at 4.30 P.M. From this moment, all the functions became re-established rapidly, and the return to health was so complete that she left the hospital two days afterwards.

"M. Hirne, clinical clerk, took the temperature at various intervals, after the first examination, which had indicated 26°. The following is the table of its gradual rise:—

Hours.	Temp. in vagina.	Temp. in axilla.
11.30	27.9	27.9
12.30	28.7	28.6
12.45	30.4	30.
1.15	30.9	31.1
3.15	34.4	34.3
4.20		36.3

Abscess and Infarctus of the Liver and Spleen.—*Le Mouvement Médical* quotes the following conclusions from a memoir on this subject, published by M. J. Arnould, in the *Gazette Médicale*:

1. Clinically, abscesses of the liver and spleen have not the history of phlegmons; the inflammatory reaction by which they are often accompanied is irregular, and depends less upon the hepatic or splenic lesion than upon the associated disturbance of neighboring organs, such as the peritoneum or pleura.

2. Anatomically, the detritus or products of retrograde metamorphosis predominate over the phlegmonous elements, in the pus of abscesses of the liver or spleen; the neoplastic membrane of the envelope is not the result of the original plasticity of exudation-substance, but the ulterior consequence of a need of protection.

3. There are instances of infarctus of the liver or spleen, that is to say, of local hindrances to nutrition in one or more regions of these glands, dependent on capillary obstructions.

4. The coagulations of blood in the liver and spleen, met with in the inhabitants of hot countries, in Europeans especially, are primarily caused by the exaggeration, physiological under such circumstances, of the glandular nutrition of those organs, through increased vascular activity.

5. This excess of vascular activity, in itself and with the aid of the general causes of debility, induces paralyses, more or less complete, of the vaso-motor nerves.

6. In consequence of these paralyses, along with a special condition of the blood, coagulations take place, first arterial and then venous.

7. Dysentery and malarial fevers, powerful causes of glandular hyperactivity and of marasmus, are eminently calculated, without being indispensable, the former to the production of infarctus of the liver, the latter to that of infarctus of the spleen.

8. The regressive evolution, the natural termination of infarctus, may produce clinically and anatomically all the known symptoms of endemic abscess of the liver and spleen. This mechanism resolves the grave objections to the hypothesis of their simply phlegmonous character.

9. Phlegmonous hepatitis or splenitis can scarcely be conceived of as possible, especially in hot countries.

10. Direct observation proves that in many cases the softening of infarctus has been the beginning of purulent deposits resembling those hitherto called abscesses of the liver or of the spleen. This is probably generally the case in hot countries.

On Œdematous Elongation with Prolapse of the Cervix Uteri, during Pregnancy and Accouchement.—M. Guéniot (*Mémoires de l'Académie de Médecine*, 1872) gives this name to a peculiar affection met with in pregnancy. The organ is congested and swollen; its cavity is transformed into an open canal. Ulceration of the os tincæ, eversion of the vagina, thinning and flaccidity of the uterine walls, are almost constant symptoms. The causes of this alteration assigned by M. Guéniot are certain anatomical arrangements of the organ, and the mechanical conditions to which it is subjected for a long time. The results of the affection are inconvenient and distressing to the woman, and there is a tendency to abortion or to premature labor.

M. Guéniot advises the reposition of the womb, and its retention by means of a tampon and bandage, with rest in the horizontal position, and sedatives.

Disarticulation of the Femur.—The *Berliner Klinische Wochenschrift* contains an account of this operation, performed by Esmarch in Kiel, in a case of osteosarcoma of the bone.

Among other points connected with the operation, particular attention is called to the following facts:

The operator deemed it advisable to saw through the bone before disarticulating the femur. This he did immediately after cutting through the soft parts. The advantages of this are very evident. The sawing through the bone requires but a moment, and then all the bleeding vessels can be secured, thus enabling the operator to proceed leisurely to the disarticulation of the head of the femur.

In the case reported, transfusion of blood was deemed necessary, and three hundred cubic centimetres of defibrinated blood were injected into the femoral vein immediately after the operation. The result was not favorable, as the patient died on the tenth day following the operation.

The blood used in this case of transfusion was the patient's own, which had been carefully caught and defibrinated during the operation, at the termination of which the femoral artery was ligated and the femoral vein exposed, so as to permit the insertion of the nozzle of the syringe containing the defibrinated blood.

Treatment of Tic douloureux by means of Ice (W. Wentteritz: *Zur Behandlung des Tic douloureux mit Eisstreichungen—Mitt. des Aerztl. Vereins in Wien*, Bd. 1, No. 7, 1872).—In a very stubborn case of facial neuralgia in a lady, which had not yielded to any of the means applied, a smooth piece of ice was stroked gently over the affected side of the face every five minutes. The painfulness of the application is lessened by holding some alcoholic fluid in the mouth until a slight feeling of warmth is excited. The pain, which disappeared in twelve hours under this treatment, had not returned ten months subsequently.

MISCELLANY.

At a special meeting of the Medical Board of Philadelphia Hospital, held September 16, 1872, the following preamble and resolution were unanimously adopted:

Whereas, It has pleased Divine Providence to remove from our midst our friend and colleague, Dr. George Pepper, Accoucheur to the Philadelphia Hospital, we, the Medical Staff of the Hospital,

Resolve, That, while we recognize the unchanging character of the Divine fiat which has called him away, we cannot but deeply deplore the loss to the hospital, of which he was an efficient officer, and to our common profession, of which he was a bright ornament. With intellectual powers which eminently fitted him to advance the science in which his interest was so deep; with a heart filled with human sympathy; with a love of truth which was unimpeachable, and a character which was beyond reproach, he was peculiarly fitted to discharge the responsible and delicate duties of his calling.

These qualities endeared him alike to his patients and professional brethren, and make it a double loss to science and to humanity that he has been removed by death just as he had fairly entered on the active duties of life. Harrison Allen, M.D.,

Sec. Medical Board.

The late Professor Edward Parrish, of the Philadelphia College of Pharmacy, who died on the 9th ult., at Fort Sill, Indian Territory, of typho-malarial fever, will be remembered by very many practitioners of medicine all over the country, who during their student days in this city attended his private lectures. He was the author of the well-known work, which bears his name, on pharmacy, and a man of high scientific acquirements, to all which he added a singularly pure and blameless private life.

The American Public Health Association.—We learn that a large number of medical and other scientific men have organized as the "American Public Health Association," with Stephen Smith, of New York, President; Edwin M. Snow, of Providence, and C. B. White, of New Orleans, Vice-Presidents; John H. Rauch, of Chicago, Treasurer; Elisha Harris, of New York, Secretary; Francis Bacon, of New Haven, William Clendennin, of Cincinnati, C. C. Cox, of Washington, Henry Hartshorne, of Philadelphia, Moreau Morris, of New York, and John M. Woodworth, of Washington, Executive Committee. The present number of members is ninety-five, all well-known workers in the field of sanitary improvement in the cities of the United States and Canada. The next meeting will be at Washington, in the last week in February.

The Hahnemann Medical College is said (by a Homœopathic journal) to contain a "segment of perforated ileo-cœcal and colic intestine (perforations caused by metallic quicksilver, administered in tablespoonful doses by old-school physicians)." Can such things be? We fail to see how.

Burning of an Insane Asylum.—The Northern Ohio Lunatic Asylum, at Newburg, was almost totally destroyed by fire about three weeks since. Nine persons perished in the flames. The institution contained about six hundred patients, and it is wonderful that the loss of life was not much larger.

Prizes Offered.—*Boylston Medical Prizes.*—The following are the questions proposed for 1873:

1. Electro-therapeutics.
2. The Value of Chemistry to the Medical Practitioner.

The author of a dissertation considered worthy of a prize, on either of the subjects proposed for 1873, will be entitled to a premium of one hundred and fifty dollars.

Dissertations on these subjects must be presented on or before the first Wednesday in April, 1873.

Warren Prize.—The income of two thousand dollars for three years will be awarded to the author of the best original dissertation, considered worthy of a prize, on the subject of "Experimental Researches on the Elimination of Drugs by the Mammary Glands."

Dissertations, accompanied with a sealed envelope, containing the name and address of the writer, must be sent on or before the 1st of February, 1874, to Dr. Benj. S. Shaw, Resident Physician, Massachusetts General Hospital, Boston.

Boylston Medical Society Prizes.—Two prizes, of thirty and twenty dollars respectively, will be awarded for the most approved dissertations, considered worthy, on medical subjects, to be selected by the author. Dissertations must be placed in the hands of the President of the Society on or before the 31st of January, together with a sealed envelope containing name and address of the author. Decision of the Committee to be announced at the last meeting of the Society in February.

Jacobi Prize.—A prize of four hundred dollars will be awarded for the best essay, considered worthy, on "A History of the Diseases of Infancy and Childhood in the United States, and of their Pathology and Therapeutics."

Dissertations must be sent, postpaid, accompanied by a sealed envelope containing name and address of author, to Dr. A. E. M. Purdy, 123 East Thirty-eighth Street, New York, on or before January 1, 1873.

A bequest of ten thousand francs has been made to the Academy of Medicine in Paris by M. Falret, for the purpose of founding a prize on mental and nervous diseases.

Absurd and Brutal Superstition in Connecticut.—The Providence *Herald*, Sept. 5, says, "The village of Peacedale was thrown into excitement on Thursday last by the report that two graves had been dug up near Watson's Corner, on the shore of the Saugatuck River. The family of Mr. William Rose, who reside at Saunderstown, near the South Ferry, are subject to consumption, several members of the family having died of the disease, and one member of the family is now quite low with it. At the urgent request of the sick

man, the father, assisted by Charles Harrington, of North Kingston, repaired to the burying-ground, located one mile north of Peacedale, and, after building a fire, first dug up the grave of his son, who had been buried twelve years, for the purpose of taking out his heart and liver, which were to be placed in the fire and consumed, in order to carry out the old superstition that the consumptive dead draw nourishment from the living. But as the body was entirely reduced to ashes, except a few bones, it was shortly covered up, and the body of a daughter who had been dead seven years was taken out of the grave beside her brother. This body was found to be nearly wasted away, except the vital parts, the liver and heart, which were in a perfect state of preservation. The coffin was nearly perfect, while the son's coffin was nearly demolished. After the heart and liver had been taken out, it was placed in the fire and consumed, the ashes only being put back in the grave. The fire was then put out, and the two men departed to their respective homes. Only a few spectators were present to witness the horrible scene. It seems that this is not the first time that graves have been dug up where consumption was prevalent in the family, and the vital parts burned, in order to save the living. A few years ago the same was done in the village of Moorsfield, and also in the town of North Kingston, both of course without success."

Darwin Defeated again (*Nature*, Aug. 1).—The choice of a foreign correspondent of the French Académie des Sciences has resulted in the defeat of Mr. Darwin, and the election of Mr. Loewen, of Stockholm, who received thirty-two votes, against fifteen given to the English naturalist. The discussion had extended over three long sittings in secret committee, the leader of the advocates of Mr. Darwin's claim being again his opponent in controversy, M. de Quatrefages, while M. Emile Blanchard led the opposition. A correspondent of *Les Mondes*, an eminent member of the Academy, in commenting on the result, states that not one of those who voted for Mr. Darwin shared his philosophical doctrines, and not one of those who opposed his candidature alleged as his motive the error or danger of his doctrines. "What has closed the door of the Academy to Mr. Darwin is that the science of those of his books which have made his chief title to fame—the 'Origin of Species,' and still more the 'Descent of Man'—is not science, but a mass of assertions and absolutely gratuitous hypotheses, often evidently fallacious. This kind of publication and these theories are a bad example, which a body that respects itself cannot encourage."

Alexander Pope and Physicians.—Pope always took the side of physicians. Like Johnson, Parr, and all men of enlightenment and sound scholarship, he had a high opinion of the faculty. His habitual tone, when speaking of the medical profession, was that of warm admiration and affection. In his last days he wrote in a confidential letter, "They are in general the most amiable companions and the best friends, as well as the most learned men I know."

Mortality of Philadelphia.—The following reports are condensed from the records at the Health Office:

	For the week ending		
	Sept. 14.	Sept. 21.	Sept. 28.
Consumption	33	42	41
Other Diseases of Respiratory Organs	15	26	22
Diseases of Organs of Circulation	17	11	14
Diseases of Brain and Nervous System	44	39	44
Diseases of the Digestive Organs	25	22	19
Diseases of the Genito-Urinary Organs	5	3	5
Zymotic Diseases	34	20	19
Cholera Infantum	17	13	3
Casualties	5	12	11
Cancer	4	7	6
Marasmus	24	23	14
Old Age	10	18	9
Stillborn	12	12	18
Intemperance	1	1	2
Suicide	0	1	3
Syphilis	0	1	0
Murder	0	2	1
Unclassifiable	36	23	35
Unknown	2	1	1
Totals	284	277	267
Adults	139	150	154
Minors	145	127	113

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 1, 1872, TO SEPTEMBER 13, 1872, INCLUSIVE.

Brooke, John, Assistant-Surgeon.—By S. O. 105, Department of the Columbia, August 31, 1872, granted leave of absence for thirty days, with permission to apply for an extension of thirty days.

Simons, James, Surgeon.—By S. O. 137, Department of the Gulf, Sept. 2, 1872, granted leave of absence for thirty days.

Gardner, W. H., Assistant-Surgeon.—By S. O. 205, War Department, A. G. O., Sept. 3, 1872, relieved from duty in Department of the East, and to report in person to the Commanding General, Department of the Missouri, for assignment.

Cowdray, S. G., Assistant-Surgeon.—By S. O. 144, Department of the Missouri, Sept. 3, 1872, granted leave of absence for thirty days, with permission to apply for an extension of twenty days—to take effect during October, 1872.

Carvallo, C., Assistant-Surgeon.—By S. O. 89, Department of the Lakes, Sept. 5, 1872, assigned to duty at Fort Gratiot, Michigan.

Hasson, A. B., Surgeon.—By S. O. 169, Department of the East, Sept. 6, 1872, assigned to duty as Post Surgeon at Fort Trumbull, Conn.

Wolverton, W. D., Assistant-Surgeon.—By S. O. 178, Department of Dakota, Sept. 6, 1872, assigned to duty at Fort Abercrombie, Dakota Territory.

Dickson, J. M., Assistant-Surgeon.—By S. O. 154, Department of the Platte, Sept. 7, 1872, granted leave of absence for thirty days, and by S. O. 86, Military Division of the Missouri, Sept. 14, 1872, leave extended thirty days.

De Graw, C. S., Assistant-Surgeon.—By S. O. 94, Department of the Lakes, Sept 13, 1872, granted leave of absence for fifteen days, and permission to apply for five days' extension.

Sternberg, George M., Assistant-Surgeon.—By S. O. 137, c. s., Department of the Gulf, assigned to temporary charge of Medical Director's office during absence of Medical Director.

Huntington, D. L., Assistant-Surgeon.—By S. O. 169, c. s., Department of the East, relieved from duty at Fort Trumbull, Conn., and to report in person at these Headquarters.

Vickery, R. S., Assistant-Surgeon.—By S. O. 205, War Department, A. G. O., c. s., relieved from duty in District of New Mexico, to proceed to New York City, and, upon arrival, report by letter to the Surgeon-General.

Moffatt, P., Assistant-Surgeon.—By S. O 205, War Department, A. G. O., c. s., relieved from duty at Newport Barracks, Kentucky, and to report in person to the Commanding General, Department of the Missouri, for assignment.

Delany, A. S., Assistant-Surgeon.—By S. O. 205, War Department, A. G. O., c. s., relieved from duty in District of New Mexico, to proceed to New York City, and, upon arrival, report by letter to the Surgeon-General.

SATURDAY, OCTOBER 12, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON CONGESTION OF THE SPINE.

BY DR. H. C. WOOD, JR.,

Physician to the Philadelphia Hospital; Clinical Lecturer on Diseases of the Nervous System to the University of Pennsylvania.

GENTLEMEN: The case which I bring before you to-day entered the wards of the hospital on the 20th of May, 1872. She had been drinking very heavily for some months, and was admitted to the "drunk-wards." The evening she came in she could walk very well. The night of the 21st, she had decided hallucinations, with sleeplessness, but these readily yielded to appropriate treatment. On the morning of the 22d the resident physician, Dr. Levy, first noticed the existence of paralysis, which he says deepened until the 24th, when it became stationary. She herself declares that she began to lose power over herself on the 21st, and by the 22d or 23d was completely paralyzed. When I first saw her, on the 26th, she lay in bed, calm, collected, with no psychical or constitutional disturbance whatever. There was no difficulty of respiration. The muscles of the face and neck were normal. The arms were completely paralyzed, but she could move the fingers of the left hand; in the right nothing stirred at her will. The right leg was completely paralyzed, but when lying in bed she could raise the left leg clear. There was some anæsthesia of both legs, but especially of the right, as tested by the compass-points. She complained of no decided pain, only heaviness and numbness in the limbs, and a feeling as if they were asleep. There was little or no back-ache, no sensation of a tightened cord around the waist. There had been no spasms whatever, except in the left leg, in which occurred occasional jerking movements, especially when excited by touching, tickling, or electrical excitement. The urine could be retained for short periods of time, but her bladder had to be frequently evacuated, or else she had involuntary discharges. The bowels were very costive. Reflex movements were very much lessened, except in the left leg, where they seemed to be heightened. The muscles were everywhere soft and relaxed. The pupils were natural.

About a week after her seizure, an electrical examination of her muscles gave the following results:

In the left leg, with primary currents (currents of the first coil of Duchenne), the response of the muscles was feeble, unless a strong current was used, and then the action was not so strong in the right as in the left leg. Through some strange omission, nothing is said in the notes as to the condition of the muscles of the arms at that time; but on the 17th of June it was noted that the muscles of the right upper arm failed to respond to the strongest induced current (probably primary current).

When this case presented itself, the first thing was to decide the nature of the attack. A very brief review of the history convinced me that the lesion was spinal, not cephalic, or, in other words, that the cause of the paralysis was in the spinal cord and not in the brain. The fact that determined this decision was the absence of any symptoms of brain palsy, such as disturbance of special sense or psychical functions. It was also apparent that there was no serious trouble in the spine above the origin of the fourth cervical nerve, as respiration was not seriously disturbed, and the function of the phrenic nerve, whose chief roots are the third and fourth cervical nerve, was not interfered with.

Moreover, it was equally plain that there was not any deep disorganization of the cord, for, whilst the motor functions of the brachial plexus—that is, the motor functions of the spinal nerves from the fifth cervical to the first dorsal—were almost abolished, the pupils were in no way abnormal. The vaso-motor nerves which supply the pupil have their origin in the region just spoken of, and the complete performance of their function was evidence not only that they were intact, but also that there was no disorganization of the cord.

The points in the case to be prominently borne in mind in making the diagnosis were:

1. Suddenness of onset.
2. Universality of motor paralysis.
3. Partial sensory paralysis.
4. Absence of all symptoms of irritation of the cord, such as spasms, or shooting pains in the limbs.
5. Absence of disorganization of the cord.
6. Absence of constitutional symptoms.

A glance at these, the main points of the case, showed that the disease could not be either acute meningitis or acute myelitis. Both of these affections are marked by intense suffering, fierce shooting pains, cinctures of intolerable anguish; in both there are also symptoms of motor excitement, such as spasms of the muscles of the arms and limbs, opisthotonos, general tetanic phenomena; and they also have, in common, fever and other symptoms of grave constitutional disturbance.

These affections having been laid aside, the next question which presented itself was, Has the patient hysteria? I decided not, and for these reasons: There were no other symptoms of that hydra-headed disease—no drooping eyelid, no craving for sympathy, none of the slight indications which betray the psychical disorder. Further, I have never seen hysterical paralysis so universal. Paraplegia from such sources is not very uncommon, but general persistent paralysis I have never witnessed. Again, in hysterical paralysis, according to Moritz Meyer, the electro-muscular sensibility is soon partially or completely lost; but our patient complained with sufficient bitterness when the galvanic current was applied to her limbs.

Another explanation of the case that offered itself was, that there had been hemorrhage into the cord,—an apoplexy of the cord brought about by the abuse of alcohol. This supposition was also rejected, not because such accident is almost infinitely rare, but because it seemed impossible that a hemorrhage

sufficient to have caused such grave disturbance should not be followed in a few days by unmistakable evidences of spinal disorganization.

By this reasoning we laid aside, one by one, all the acute diseases of the spinal cord, except that known as *congestion*.

Now let us consider in detail the phenomena of this affection, and see how far they agree with those offered by our case.

The cause of the disease, according to authors, is diverse. Ollivier assigns suppression of the menses or other discharges, as a frequent cause, and in this has been followed by most subsequent authorities. Hammond states that he has seen several cases apparently due to long standing; Radcliffe and others speak of venereal excesses; but all authorities appear to agree that one of the most common causes is exposure to cold, especially lying upon the back on the cold ground. It was just such an exposure which produced the attack in our patient. In her drunken unconsciousness, she lay upon the ground and in the wet, reckless of consequences.

The onset of this disease is very generally sudden. Rarely it may happen that the paralysis develops only in the course of one or even more days, but in the majority of instances it comes on with great rapidity and abruptness. Thus, Ollivier details the case of a lady who, when her menses were due,—their coming had been announced by the usual symptoms,—took a cold bath in the morning, and whilst dining out the same afternoon suddenly felt paralyzed; and Hammond tells of a lawyer whose long, labored speech was brought to an abrupt close by a similar incident.

In the present case, there had been, according to the statement of the patient, indications of spinal trouble for some two or three weeks. She says she had for a long time drank on an average over a pint of the commonest whisky daily, and it seems impossible to decide how far the weakness and stiffness in the legs, the intense itching of the skin, the pricking and numbness of the fingers, were really due to threatening spinal congestion, and how far to the exhaustion of prolonged over-stimulation of the nervous centres. Be this as it may, she could walk well enough when she entered the hospital, on the evening of May 20. On the night of the 21st she had marked hallucinations, with sleeplessness, which readily yielded to appropriate treatment. On the 22d, the attention of the resident physician, Dr. Levy, was first called to the existence of the paralysis, which he states was not so complete at that time as when I first saw her—on the 24th. She herself states that the paralysis developed almost entirely during the day and night of the 21st.

It is evident then that, in the case under consideration, the attack, though exceedingly rapid, was not so absolutely sudden as in some cases.

In the fully developed affection a primary fact is the total absence of fever or other general constitutional disorder. The symptoms are purely local in their character. The paralysis is distinguished by its being very general, but often incomplete, as well as, according to Radcliffe, by its coming irregularly, creeping, as it were, from limb to limb. The bladder and rectum very often are not affected, but, although some authorities assert to the contrary, they certainly are in some cases involved. In the case before you, the patient was able to retain her urine for a time, but if she had not opportunity to empty her bladder frequently, she had involuntary discharges from it.

The disturbances of sensation are less marked than those of motion. Radcliffe asserts that there is no anæsthesia or numbness, but Hammond is certainly right in stating that, although there may be hyperæsthesia in some cases, yet anæsthesia is not rarely present. There was certainly in our case a very decided but far from total loss of sensibility, with a pronounced feeling of numbness.

Reflex movements are never intensified, and, in most cases, but slightly affected, but in the present instance were very much diminished; the spinal cord seemed to have almost lost its power of answering peripheral irritations.

Pain is never a very prominent symptom. Sometimes the patient complains of a dull aching in the back, increased by a recumbent posture, or by the application of warmth. It was somewhat remarkable that in the present case this aching was not complained of until a marked improvement had occurred in the symptoms.

When pains in the limbs do occur, they are to be distinguished from those of myelitis and meningitis by being less severe, and by not being aggravated by motion. Tingling, formication, and the minor symptoms of æsthesiodic disturbance, are very common.

In our case no record was kept of the temperature of the limbs, but according to Hammond it is generally lowered, owing to vaso-motor paralysis.

The disorders of nutrition are not nearly so marked as in acute myelitis. Bed-sores I have never seen, but they are asserted to form in some cases. The electro-muscular contractility, although in severe cases diminished, is often only slightly so, and is very rarely totally lost in any muscle or group of muscles. When it is so, I think we are justified in asserting that there has been in such cases an effusion, which has produced serious organic changes in the portions of the spine which supply the affected muscles.

Quite recently Dr. Mitchell has noticed that the growth of the nails is arrested in hemiplegia, and I consequently stained the nails of this patient early in her attack. There certainly was a *partial* arrest of growth in the nails, especially in the right hand, which was much more deeply paralyzed than the left. Up to the 10th of June, the nails of this hand had scarcely grown at all; then, however, they began to grow with more rapidity, but still much more slowly than those of the other hand.

The course of the case is ordinarily favorable; after a more or less lengthened period of time, the symptoms usually yield to appropriate treatment, and recovery takes place. Sometimes, however, the paralysis deepens and the case ends fatally; generally this happens, if at all, within a few days or weeks from the beginning of the attack.

The mode of death is by asphyxia from paralysis of the respiratory muscles.

There can be no doubt that the affection which we have been considering is a distinct one, separate from its allied diseases. Death from it is comparatively rare, and but few autopsies have been reported. In those which have been recorded, there have been no marked changes discovered in the cord itself, but the vessels outside of the cord have been found in a high state of engorgement, and in some instances there has been apparently a very decided serous effusion. In a case reported by Ollivier, it is expressly stated that it was chiefly the plexus of veins lying between the vertebral column and the dura mater which were affected.

The symptoms are evidently simply the result of pressure on the cord. Ollivier accounts for the fact that the motor elements are much more disturbed than the sensory, by anatomical reasons. He says the anterior portion of the cord is always kept close to the posterior face of the vertebræ by the spinal roots, whilst the posterior portion is five or six lines from the corresponding face of the canal. The result of this is that liquid interposed between the cord and canal exerts much more pressure upon the anterior than the posterior part of the cord. At the same time, there is also a congestion of the vessels of the pia mater, and this effort of dilatation acts almost exclusively upon the anterior face of the cord, on account of its being so close to the resistant vertebræ. Hence the anterior columns especially suffer compression.

I think that there is some force in these facts, but we now know that the sensory impressions are chiefly transmitted through the gray matter, which, being situated near the centre of the cord, must be the last portion of it to feel the effect of external pressure.

ORIGINAL COMMUNICATIONS.

CYSTIC ENCEPHALOID OF THE OVARY AND OMENTUM.

BY A. C. W. BEECHER, M.D.

MRS. A. E., æt. 26 years, married, has one child. She is small in stature, and delicately built; her health has been delicate from her childhood.

February 6, 1871, I was called to see her, and found her suffering from sharp pain in the right hypochondriac region, which prevented sleep, and destroyed her appetite. She informed me that about two weeks before, having some snow on the soles of her shoes, she slipped upon an oil-cloth in the house, and received a severe fall, bruising her face, and producing ecchymosis about the right eye, and on the right side of the chest and abdomen. The fall was followed by unconsciousness for a short time. For the two weeks succeeding this accident, she coughed up blood, varying in quantity and attended with considerable pain.

The urine was dark-colored and turbid; there was difficulty in micturition and in defecation. Most of these symptoms had subsided when I first saw her. Suffering had left its impress upon her countenance. Hypodermic injections of morphia, with hydrate of chloral internally, produced only temporary relief from pain. Tonics and nutritious diet were directed for support. A frequent sensation of nausea was guarded against by lime-water. She continued in some comfort for several weeks, but confined to the house. The pain in the right side continued, and was aggravated by pressure. Hepatic dulness seemed about normal. The abdomen then began to enlarge as in ascites, not rapidly, but gradually, and palpation showed the existence of fluid, which did not materially lessen in quantity under the use of diuretics. The return of pleasant weather enabled her to take some out-of-door exercise. She also left the city for a short time, but an aggravation of symptoms induced an early return. I found the abdomen increasing in size, the pain continuing, and the constipation only relieved by cathartics. The superficial abdominal veins were very much enlarged.

September 11, Dr. J. M. Da Costa saw her, and diagnosticated a solid tumor of no small dimensions in her abdomen, in addition to the fluid. It seemed to extend from the margins of the ribs to the umbilicus, and, as it was not connected with the liver, there being diminished hepatic dulness and no splenic enlargement, its character was decided to be peritoneal growths with ascites from pressure, or ovarian tumor. A subsequent digital examination per vaginam failed to show any uterine or ovarian involvement, there being the usual free motion of the organs. Her abdomen at this time measured 39½ inches in its largest circumference. She was much emaciated from pain, loss of sleep, loss of appetite, and the great weight. As she had been nursing, there had been no catamenial discharge. Hydrarg. chlor. corros. gr. $\frac{1}{24}$, and infusion of scoparius, had been given for some time, as suggested by Dr. Da Costa, but with little benefit. She continued growing worse, particularly as to the abdominal enlargement.

December 11.—Dr. Da Costa again saw her. Emaciation had increased very markedly; greater tenderness on pressure of abdomen, which now measures 43¾ inches. She has much shortness of breath, caused by the pressure upwards of the tumor and fluid. Cannot lie down to sleep, from a sense of suffocation. The tumor is now regarded as malignant. From this time she grew worse rapidly, all the symptoms being aggravated. Anodynes had no effect, except in large doses.

January 16, 1872.—She died from exhaustion, having shown remarkable tenacity of life.

Post-mortem examination, made twenty-four hours after death.—Countenance bore expression of long suffering; body exceedingly emaciated; superficial abdominal veins very much enlarged, and the skin and subcutaneous tissue over the line of their courses deeply ecchymosed; abdomen measured 45 inches in circumference. A longitudinal incision was made in the median line, extending from the ensiform cartilage to the pubic symphysis. Bloody serum, containing a pinkish, shred-like material, was removed to the amount of

three gallons. The tumor was adherent to the anterior abdominal walls over a surface 15 inches in diameter, and dissection was required to separate them. Posteriorly and laterally, the tumor was entirely free; superiorly, it was attached to the omentum, which was almost entirely involved in the growth; and inferiorly, to the left ovary, which was entirely lost in the tumor, no trace of ovarian tissue being detected upon careful subsequent dissection.

Though in one large envelope, the tumor was lobulated and cystic in character; the cysts did not extend entirely through it. The incision in the linea alba opened a cyst from which was taken a small quantity of bloody fluid, with a large quantity of shreds of broken-down tissue. The other cysts had similar contents. The tissue in the solid lobes was of a yellowish-white color, and not very firm; it resembled cerebral substance. The cyst-walls were thick and dense, varying from ¼ to ½ inch. The veins running through the tumor were enormously distended, and capable of admitting the little finger.

The left Fallopian tube was stretched to seven inches in length, and its calibre wide enough to admit a large uterine sound. It lay close along the inferior portion of the tumor, and was not involved, being freely movable along its entire length. The tumor was 18 inches in its longest diameter, 15 inches in width, and nine inches in thickness, and by actual weighing was 25 pounds.

An examination of the specimen by Dr. Da Costa determined it to be cystic encephaloid of the ovary and omentum. The specimen is now in the Jefferson College Museum.

The liver was somewhat contracted and pale in color; the spleen was about normal in size and color. The kidneys were pale, but presented no marked degeneration. The other cavities of the body were not examined.

In making the examination I was assisted by Dr. William H. Webb, who also saw the patient with me several times during life.

TRANSLATIONS.

A FEW REMARKS UPON THE RELATION OF HÆMOPTYSIS TO PULMONARY CONSUMPTION.

Translated for the *Philadelphia Medical Times* from the German of Professor Felix von Niemeyer.

BY HAMILTON OSGOOD, M.D.

THREE years ago, through my assistant, Dr. Ott, I published, in the *Berliner Klinischen Wochenschrift*, a series of clinical lectures upon pulmonary tubercle and pulmonary consumption, beginning with the following words:

"No doctrine in the whole range of pathology demands a thorough reform so urgently as the doctrine of pulmonary consumption. In this direction, clinical medicine has become completely superseded by pathological anatomy. The expression 'tubercle of the lungs' is still the most frequently-used designation for consumption of the lungs; a proof that the majority of physicians and clinical teachers of to-day hold fast to the stand-point of Laennec, and recognize only *one* form of consumption, viz.: tuberculous consumption. The dangerous assertions of Laennec, that '*pulmonary consumption is a constitutional disease, which can never develop itself from an acute or chronic pneumonia, never from a bronchial hemorrhage, never from a neglected catarrh,*' are even now repeated from the lecture-chairs as incontestable truths, and, in practice, exercise upon the prophylaxis and treatment of consumption the most prejudicial influence."

The thorough reform of the theory of pulmonary consumption, which three years ago I indicated as being so urgently necessary, was not long in coming. The views of physicians respecting the relation of pulmonary tubercle to pulmonary consumption have since that time undergone an almost entire change. To-day, the above-quoted opinion of Laennec, which three years ago was perfectly allowable, and the correctness of which was at that time denied by nobody, is no longer accepted. I may be permitted to maintain that my clinical lectures, which met with an uncommonly rapid and wide-spread reception, and which were soon followed by the excellent works of Hoffmann, Colberg, Waldenburg, and others, contributed essentially to this change, as well as to the clinical value of the works of Virchow and Buhl, which by practitioners have for years remained almost unnoticed.

But few passages of the mentioned publication have experienced serious attack. Indeed, even the assertion that "*the greatest danger of most consumptives is that they may become tuberculous,*" which at first, from various sides, was designated as going too far, or as whimsical, after having received, through countless experiments upon animals, a weighty confirmation, is now almost universally recognized as perfectly correct. Only in respect to the relation of pulmonary and bronchial hemorrhage to consumption of the lungs is the correctness of my views disputed, and in this instance by a weighty authority,—Geheimrath Traube, of Berlin.

Traube, apparently, does not share the opinion that under certain circumstances the product of acute or chronic catarrhal pneumonia, and in some cases also the product of croupous pneumonia, undergoes a cheesy metamorphosis. He evidently still holds fast to the old theory, according to which one must, from the cheesy metamorphosis of the infiltrates, which have been the result of a certain kind of inflammatory process, infer the "tubercular nature" of the same.

Under the title "A case of acute tubercular (cheesy) pneumonia with rapidly fatal termination," Dr. Fräntzel published, in 1867, the following case, including observations by Traube:

A clerk, æt. 28, who claimed to have been previously healthy, experienced on the 24th of May a severe attack of chills. This attack was succeeded by constant fever and cough. Several days later, spitting of blood set in, which became so considerable as to lead the patient to seek admission to the Charité. Here it was found that the body-temperature was 40.1° R., the pulsations 100, the respirations 48. Examination of the chest discovered a marked and extensive condensation of the left lung, and abundant râles in the same, but no bronchial respiration. The spitting of blood continued, as did the fever; the respirations increased to 60 in the minute; the patient began to be delirious, and at length insensible. Collapse set in, and on the seventh day after his admission to the hospital, and thirteen days after the attack of chills, the patient died.

Autopsy.—Excepting several old, indurated nodules, and a few smooth-walled cavities of the size of cherry-stones which were found in the apices of *both* lungs, the autopsy revealed simply a very extensive lobular infiltration of the entire left lung. Within the firm,

grayish-red, granular, hepatized localities were, here and there, found nodules from the size of a pea to that of a bean, which were undergoing cheesy metamorphosis. In the right lung were also found small, scattered, clear grayish-red hepatized spots. *In no place did the bronchia contain either fresh or old blood-clots.*

That in this case the pneumonia was not the result of the hæmoptysis, but the hæmoptysis the consequence or a symptom of the pneumonic process, cannot be doubted; and I do not hesitate to admit that through this case of Traube's my attention has been called to a connection between hæmoptysis and the inflammatory process which leads to pulmonary consumption, which, in my clinical lectures, as well as in the seventh edition of my Pathology, I have neglected to mention. On the other hand, however, I am far from believing with Traube, in spite of his rich experience, and his gift of keen observation, that those cases in which hæmoptysis is a symptom of a pneumonic process are either abundant or form the rule. Still less do I accept his belief that the countless cases of phthisis which, according to the experience of every century, follow hæmoptysis, are always, or even generally, dependent upon the progress of that process which lays the foundation of the hemorrhage,—let one designate it tubercle or tubercular pneumonia, as he will.

In my earlier experience only *one* case fell under my notice which conforms to that of Traube's patient. The parallel is very striking. I speak of a young theological student from Switzerland. In his case, severe fever and other pneumonic symptoms appeared synchronously with the hæmoptysis, and accompanied the same to the fatal end, which occurred in the middle of the second week, it having been impossible to check the hemorrhage. In the last days of his sickness the patient fell into a furious delirium. The post-mortem discovered, in both lungs, pneumonic infiltrations, which when cut showed an indistinctly granular surface, without indications of cheesy change. *The bronchial tubes were perfectly free from coagula.*

Since Traube's case became known to me, I have noted with greater exactitude than formerly, in every case of hæmoptysis which I have had opportunity to observe, the presence or absence of fever and other pneumonic symptoms, and especially the time when the hæmoptysis took place. In only one case, however, has it appeared to me probable that the hemorrhage was a symptom of a pneumonic process. In every one of the remaining cases, the fever and inflammatory indications failed either during the entire course of the hemorrhage, or at least in the first days of the same. In the case of a young Swiss physician who was attacked by an hæmoptysis of rather severe character, the body-temperature while the patient remained in my charge did not exceed 37° R. He went home several days after cessation of the bleeding. There, without experiencing a return of the hemorrhage, he was seized with pleuritic pains; whether the pains were attended with fever, and what the later history of the invalid was, I have not learned.

The rare cases of pneumonia which are connected with a capillary hemorrhage of such abundance as to come under the head of hæmoptysis, appear, therefore, to be especially dangerous, because the infiltrations to which they lead possess an eminent inclination to cheesy metamorphosis. But we have no reason to refer the frequency of this issue to any peculiarity of the pneumonic process. The profuse admixture of blood in the inflammatory product is amply sufficient to show that the infiltrate is liquefied and absorbed only with difficulty, and that it frequently degenerates into cheesy metamorphosis. *Cæteris paribus*, a more unfavorable prognosis is made, and one may fear that the disease will not terminate in a breaking up of the deposits, when the sputa of a croupous pneumonia, instead of the yellow-brown tint, exhibit a color similar to that of plum-sauce. In a hemorrhagic infarctus it is precisely the rule that the originally dark-brown nodule, by a lengthened process, becomes yellow and cheesy.

With the exception of that rarely occurring hemorrhagic pneumonia (which heretofore I have omitted to mention) which leads to hæmoptysis, and later, through cheesy metamorphosis and the destruction of the infiltrates which have remained, to phthisis, I think I shall be able to refute with ease the objections which Traube has raised against my views touching the connection between hæmoptysis and pulmonary consumption.

The positive assertion of Laennec and Louis, viz., that even in those cases in which hæmoptysis precedes the cough, the sputa, and all other signs of pulmonary phthisis, tubercle had already a pre-existence in the lungs, has, it is true, until within a short time, been held by physicians as absolutely correct. This assertion, however, as I have long ago said, rests not by any means upon experience derived from the autopsies of fresh cases of hæmoptysis, but always upon the hypothetical argument that lung-consumption depends upon a new formation, and that this new formation cannot well proceed from blood which has flowed into the alveoli of the lungs.

The correct view is, that miliary tubercle, which, of course, very frequently pre-exists in phthisical lungs, develops itself, in the greater number of cases, only in an *advanced* stage of the disease, and that inflammatory processes in the lungs form the common point of origin for phthisis. By the side of this belief, it is self-evident that the theory against the dependence of lung-phthisis upon pulmonary hemorrhage falls to the ground. Possessing the correct view, one is no longer obliged to assume that all those individuals who, becoming attacked by hæmoptysis in the midst of apparently perfect health, immediately thereupon show the first signs of consumption of the lungs, have, before the appearance of the hemorrhage, been mistaken in regard to the condition of their health. It became pressingly necessary to submit to a new proof the doctrine which the most prominent inquirers, from Hippocrates to Laennec, omitted from their observations,—namely, that many cases of phthisis develop themselves from an hæmoptysis.

I have therefore for years followed, with the greatest possible exactitude and freedom from prejudice, every case of pulmonary hemorrhage which has fallen under my observation. In every instance, I have taken especial pains to ascertain the physical condition of the patient, both before the hemorrhage and at the beginning of the same. The experience of every physician in active practice will certainly agree with mine, viz., that those persons who have repeatedly suffered from epistaxis are later preferably disposed to attacks of spitting of blood, and that, customarily, the earlier attacks of epistaxis, as well as the later seizures of hemorrhage of the lungs, are in no way accompanied by constitutional disturbances, fever, or inflammatory indications, but on the contrary, while experiencing surprise and fright, the patients in other respects feel perfectly well. This experience led me to affirm (in a dissertation written under my supervision by Dr. Bürger*) that the morbid erosibility of the capillaries (hemorrhagic diathesis), which is especially observed in poorly-nourished, weak, delicate individuals, after a rapid growth, or other exhausting influences, leads, during childhood, to capillary hemorrhage from the mucous membrane of the nose; at puberty and soon after, preferably to capillary hemorrhage from the bronchial mucous membrane.

[Conclusion in our next number.]

* Ueber das Verhältniss der Bronchial- und Lungenblütungen zur Lungenschwindsucht.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROF. S. D. GROSS.

Reported by FRANK WOODBURY.

A CASE OF SARCOMA OF THE ILIUM.

WILLIAM P. JOHNSTON, nineteen years of age, first appeared at the surgical clinic on the 19th of last June, during the service of Dr. S. W. Gross. He was kindly sent to the clinic by Dr. Roland, of Media, who had been attending him, and regarded it as an interesting case. At that time he seemed as if he were laboring under a wasting disease, or as if his nutrition was greatly impaired. His face, which was pallid and anæmic, wore a despondent look, the result apparently of physical or mental suffering. He was thin and emaciated, and said that he was losing flesh. The affected limb was partially drawn up, the knee and thigh being semi-flexed; the knee was close to its fellow, and the foot was directed outward as in an ilio-pubic dislocation of the femur. It was also thinner than its sound neighbor, from a partial atrophy of its muscles.

He gave the following history: About one year before his appearance at the clinic, while working in a lumber-yard, a heavy plank fell upon him, striking him forcibly on the right hip at a time when he was bending forward to lift something from the ground. The injury was followed by loss of consciousness, and he was confined to his house for a week from its effects. Two weeks subsequent to this accident, an abscess formed at the spot, and discharged a large amount of unhealthy, dark-colored pus, of an offensive odor. He had apparently entirely recovered, when he caught a severe cold from exposure to a storm. This brought back the pain, which he considered at the time to be of a rheumatic nature. This was two months after the accident. This pain continued, being almost constant, but not severe, for about eight months, at the end of which time he began to find an increased difficulty in walking, and, on examining, first noticed a hard swelling of large size at the situation of the present tumor, which he thinks has increased but little since that time, but which has so disabled the limb as to oblige him to use a cane in walking.

The tumor projected posteriorly, apparently from the sacro-iliac symphysis to the anterior superior spinous process of the iliac bone, and from its crest almost to the tuberosity of the ischium. There was a corresponding tumor in front, protruding the anterior wall of the abdomen as far over as the umbilicus. The tumor was of large size, firm, immovable, elastic, with an apparent sense of fluctuation at one point. The skin was natural in appearance, was not adherent to the mass, and there were no enlarged subcutaneous veins. There was preternatural heat in the part, which was evidently several degrees warmer than the opposite side of the body. The tumor was smooth, not tuberculated or nodulated, and gave but little pain, which was more of a dull and aching than of a sharp or darting character. The following measurements were taken over the tumor, and contrasted with those on the opposite side:

	Over the tumor.	On opposite side.
Diagonally, from the posterior superior spine of the ilium to the great trochanter . .	11 inches.	7 inches.
Transversely, from the spinal process of the sacral vertebræ to anterior superior spinous process	11½ "	11 "
Vertically, over the most prominent portion of the tumor from about the centre of the crest to the tuberosity of the ischium	13½ inches.	11 inches.
Around the body, from the sacral vertebræ to the median line in front	18½ "	16 "

His appetite was good, the digestive functions were well performed, he had no headache and slept well.

September 7.—He appeared again at the clinic. The tumor had evidently increased in size, but did not exhibit any tendency to ulceration. His general health remained good, although he was still losing flesh.

Prof. Gross examined the patient. The tumor, which was quite solid throughout, extended nearly to the ischial tuberosity, and was the seat of a constant aching pain. A number of enlarged glands were found in the groin above Poupart's ligament.

The lecturer said, "The original injury may or may not have influenced the production of the disease. The affection might have presented itself in the part if the accident had never occurred. Patients often ascribe a supposed origin to diseases with which they could not have the slightest connection. Too much reliance must not be placed on the statements of patients, as they may mislead, even when not made with that intention; although the contrary is frequently the case, especially in diseases of a venereal origin.

"What is the nature of this tumor? The skin above it is natural and not adherent, the subcutaneous veins are slightly enlarged, but not so much so as they generally are in the variety of carcinoma known as encephaloid, which obtains its name from the resemblance it bears, on section, to the human brain, and is for the most part soft and elastic in consistence. This tumor is dense and firm; it is, therefore, not encephaloid. It is not scirrhus, because I have never seen scirrhus attain such a bulk; it is generally small, and occurs most frequently in the mammary gland and uterus, and in the liver, anus, and rectum; rarely, if ever, occurring in the bones, tendons, ligaments, muscles, brain, lungs and spleen, or in the vessels and nerves. This is not a colloid tumor; for, although colloid tumors attain a large size in the peritoneum and ovary, yet they rarely occur on the surface of the body; and, even in such a case, there could exist no danger of confounding this dense, hard tumor with colloid, which is, as its name implies, of a jelly-like consistence. This is not a fatty, hydatid or fibroid tumor, nor is it epithelioma. It is none of these; it is sarcoma. But this name conveys a wrong idea of the pathology of the disease. It means a fleshy tumor, whereas it is not more fleshy than a number of other tumors to which the name might with equal propriety be applied. It is an old name which was revived by Virchow, and by him used to designate a class of tumors which are not essentially malignant, and which, until within a few years, were confounded with encephaloid disease. Sarcoma exists in a variety of forms, which have been divided according to their microscopical characters into round-, spindle-, and giant-celled, the form most commonly met with being the round-celled variety, which exhibits itself in different portions of the body. In this case I notice an enlargement of the inguinal glands, which is unusual, and which I consider a grave symptom. The glands generally become enlarged in the neighborhood of an encephaloid tumor in a state of ulceration; and accompanying scirrhus there is an enlargement and induration of the surrounding glands, which is supposed to be due to direct absorption of the cancer-elements. This, however, is rare in sarcoma. From the appearance of this tumor I should consider it as belonging to the round-celled variety. It is quite as unrelenting as cancer, and the only efficient remedy is prompt and early removal. If in the present case this disease were in its incipiency or earlier stage, I should not doubt the pro-

priety of such an operation, nor hesitate to perform it. But now this is out of the question; the condition of the patient, the ganglionic involvement, the extent of the operation,—which would involve laying open the abdominal cavity,—all forbid such interference; it would only hasten the fatal issue. Even were the operation successful, the disease would return in a few weeks either in the cicatrix or in some vital organ. We can do nothing for the patient except to try to sustain his general health; if he suffers pain, we will give him an anodyne. Pain is a direct evil, and oftentimes claims treatment, especially in cases where it interferes with health by preventing sleep or producing mental distress. You must not let your patients suffer.

"The prognosis in this case is very clear and unmistakable. We will give him no medicine, as it would be without effect except to disorder his stomach. He may take some gentle exercise every day in the open air, and get as much food and sleep as possible.

"I had a case in my private practice somewhat similar to this, during the latter part of last term. The patient was a young married man, twenty-eight years of age, who had a tumor in the calf of the leg, which I pronounced sarcomatous and carefully removed. This shortly returned, and was followed by a second operation, but when it recurred again, which it did soon after, I advised amputation. This his friends would not consent to, and, being overruled, I again cut it out, but was not successful in obtaining all the morbid structure, as it extended into the popliteal space. This was followed by another recurrence of the disease, and this time I performed Teale's amputation at the junction of the middle and lower third of the thigh. The operation was followed by extensive suppuration, but the stump finally healed. The man died a few months later, with symptoms of solidification of the left lung. I was unable to obtain a post-mortem, as the patient was a Hebrew, whose religion forbade such an examination; but I am quite certain that he died of sarcomatous disease of the lung. Notice the history. The patient had sarcoma of the leg, which repeatedly returned after apparent extirpation, showing a special tendency to the disease existing in his system. After its usual seat of manifestation was removed, it suddenly invaded one of the internal organs, and the man died—not from pneumonia, but—from a sarcomatous deposit in the lung. There was not in the last instance, strictly speaking, a return of the disease, but there was a fresh development of it in another part of the body.

"If you have the opportunity of extirpating a tumor of this kind in its earlier stage, always do so, but do not be too sanguine. There is always danger of return in some internal organ, and the chances are that the patient will ultimately perish from the disease."

MAMMARY ABSCESS.

A young married woman, 27 years old, applies for treatment for a painful swelling in the right mammary gland. She has been confined eight weeks before. The breast is swollen, tender, and painful to the touch; and the skin over the affected part is tense, hot, and discolored, and has a peculiar glazed appearance. The tumor is not diffused, but is limited to one portion of the breast, and on touching it there is a sense of fluctuation as if its contents were fluid. This is readily distinguished from the false fluctuation in anasarca and œdema.

This affection is a phlegmonous abscess of the mammary gland, commonly called, by the women, a gathered breast. I have divided abscesses into two kinds: the phlegmonous, which is acute in character, is accompanied by a high degree of inflammatory action, runs its course quickly, is exquisitely sensitive, and is accompanied by throbbing pain; and the scrofulous or strumous, known as the cold abscess from the absence of inflammatory symptoms, or chronic, on account of the slowness of its development. The latter is only met with in persons of a peculiar diathesis, who are particularly liable to phthisis and other tubercular diseases; the former occurring much more frequently, and being seen in all ages and conditions of life.

This trouble was preceded by inflammation of the gland, or mastitis, which frequently occurs during lactation, and may be due to a number of causes, the most prominent one being suppression of the cutaneous perspiration. It generally makes its appearance within the first fortnight following parturition, and exhibits itself in the shape of small lumps, which are rather hard and deep-seated, quite tender to the touch, and about the size and shape of an almond. These are inflamed lobules, and from them the inflammation may quickly extend to surrounding lobules and may gradually involve the entire gland, which becomes swollen and heavy, and the skin over it is hot, discolored, and glossy, perhaps a little œdematous. The secretion of milk is interfered with, as the galactophorous ducts are choked with the accumulated secretion. This condition if not timeously arrested passes quickly into suppuration, forming a mammary abscess. The inflammation in its early stage may be checked by mild stimulating applications, such as linimentum ammoniæ, or warm oil with laudanum. These are to be frequently used; the nurse, in applying them, standing behind the patient, and gently rubbing the lotion on the affected gland with her hand, the direction of the friction being toward the nipple. This generally softens the induration in a short time, and promotes the flow of the milk. Combined with this, the patient may be treated on general antiphlogistic principles; occurring in a plethoric person, it may be necessary to take a few ounces of blood, either from the arm, or by leeches, from the affected part. The diet must be of the lightest kind; purgatives are sometimes called for; and the breast must be supported by a bandage or sling, having the milk drawn from it several times daily.

This inflammation may pass into suppuration, forming the condition present in the case before us. The symptoms indicative of this event are an increase of deep-seated pain of a throbbing nature, and discoloration of the surface; but the most decisive diagnostic symptom is the sense of fluctuation to the touch. This condition may be accompanied by flushes of heat over the body, followed by profuse perspiration. The indications for treatment are to open the abscess by a free and early incision, to evacuate the pus and prevent it from burrowing among the fat and dissecting the lobules of the gland from each other; by this means we save structure, time, and suffering. The pus, in such a case, is generally of a cream-like consistency, of a light yellow color, with perhaps a few flakes of lymph, but always contains milk, which is evident under the microscope. The amount of pus discharged varies from an ounce up to a quart, being generally from four to six ounces.

The mammary gland is sometimes enlarged and painful from over-distention with milk, but a due attention to the symptoms will effectually prevent any one from confounding such a condition with the one just described.

After opening the abscess with a curved bistoury, a slippery-elm poultice was directed to be applied and renewed three times daily, the inflamed part to be painted with equal parts of tinct. iodine and alcohol, some laxative medicine given, and the patient enjoined to keep at rest for a few days.

DOUBLE HYDROCELE WITH CONGENITAL HERNIA.

Henry Porter, æt. 6 weeks, exhibited a distended scrotum, the enlargement extending into the lower part

of the abdomen. This tumor was first noticed by the mother when the child was two weeks old.

This affection may be hydrocele, or hernia, or both; but whatever it is, it was, without question, congenital in its origin. A hydrocele of the vaginal tunic of the testicle may exist by itself, and, in rare cases, may coexist with hernia. On examining the scrotum we find that it is much larger than it should be, and the testicle is at its lowest portion. The tumor is soft, translucent, and fluctuates, but at one part has a peculiar gaseous feel.

Hydrocele is an accumulation of a watery albuminous fluid, generally in the vaginal tunic of the testicle, but it may be encysted in the spermatic cord. It receives the name of single or double, according as it is limited to one side or exists on both. It forms a soft fluctuating tumor, which by transmitted light is seen to be translucent; it frequently occurs in children, but is also a disease of adult life. It may be simulated by a scrotal inguinal hernia, which however generally is a denser tumor, and is not translucent; it receives a distinct impulse when the patient coughs or cries, and, if reducible, returns into the belly with a gurgling noise on applying taxis. An exploring-needle, however, would settle a doubtful diagnosis, as its withdrawal would be followed by a drop of clear fluid if the tumor were hydrocele.

Congenital scrotal hernia will be readily understood by remembering the course which is followed by the testicle in its descent. This organ is originally developed, during intra-uterine life, in the upper and back part of the abdominal cavity, immediately under the kidney and behind the peritoneum, to which it is firmly attached. By the contraction of the fibres of the "gubernaculum testis," the testicle is gradually brought to the opening of the internal abdominal ring, through it, and along the inguinal canal, until, emerging from the external abdominal ring at about the seventh month of fœtal existence, it assumes the position that it occupies in after-life. In its descent it draws with it the peritoneum, forming a funnel-shaped process extending through the inguinal canal to the testicle. Generally the sides of this peritoneal canal grow together shortly afterwards, and degenerate into a fibrous cord, thus obliterating the cavity; but nature sometimes fails to do this, and the communication remains open, and when the child cries the bowel is forced down, forming oblique inguinal hernia. This is called congenital hernia. Now, if hydrocele also exist, the fluid, by pressing on the tumor, might readily be made to recede into the peritoneal cavity through the abnormal opening. In the case before us, both conditions are evidently present. The watery, fluctuating part of the tumor is the fluid contents of a hydrocele, and the denser, gaseous portion is undoubtedly a loop of intestine.

A less careful diagnosis here might have destroyed the child's life; either from an incautious puncture of the bowel, or, by endeavoring to cure the hydrocele by adhesive inflammation, the morbid action might readily extend by direct continuity of structure and produce fatal peritonitis.

To promote absorption of this fluid, a weak solution of hydrochlorate of ammonia in water (grs. x to f℥j) will be used,—a cloth wet with this shall be kept constantly to the part. Treatment for the hernia must be deferred until the child is a little older. He is too young now to wear a truss, as his skin is too delicate and tender, and the pressure would irritate it. It would also be impossible to keep such an apparatus clean. For these reasons a truss should never be ordered for a child so young, as its use may be dispensed with for a few months, with advantage to the patient and comfort to his attendants.

A NEW edition (the third) of the "Philadelphia Medical Register and Directory," will soon be issued.

WILLS OPHTHALMIC HOSPITAL.

SERVICE OF H. E. GOODMAN, M.D.

Reported by CHARLES K. MILLS, M.D.

EXTRACTION OF CATARACT BY LIEBREICH'S NEW METHOD.

G. R., æt. 77, in his right eye presented a good example of an amber-colored, senile cataract. The left eye had several months previously been operated on successfully by Von Gräfe's modified linear extraction method.

On consultation, it was decided to extract, and after the patient had been in the hospital two days, the following operation was performed, the pupil having been strongly dilated with atropine. The patient was placed upon his back; no anæsthetic was administered. Dr. Goodman stood behind the head of the patient, and carefully elevated the upper eyelid with the index finger of his left hand, steadying the eyeball by gently pressing the middle finger against the inner canthus. In his right hand he held a small Gräfe knife, with its back horizontal and backwards, the plane of the blade making with the horizontal meridian of the eye an angle of about 45°. With this knife he punctured the sclerotic about one millimetre behind the corneal margin, and at a point two or three millimetres above a line drawn horizontally from the upper pupillary margin of the iris. The knife was then passed straight across through the anterior chamber, and brought out at a point corresponding to that of entrance, namely, in the sclerotic, but as close as possible to the sclero-corneal junction. Pushing the knife forward gently, and then retracting it, he finished the incision, after which the eyelid was allowed to drop carefully. Liebreich generally makes his incision below the pupil, although he states that it can be made either downwards or upwards, as in the case we are reporting, according as the surgeon operating may prefer.

The upper lid was again elevated carefully, a cystotome was introduced through the opening in the cornea, and the anterior capsule of the lens was lacerated.

Iridectomy was not performed.

The upper lip of the corneal wound was now depressed slightly by means of the index finger of the left hand, and gentle pressure was made upon the cornea beneath the wound by a tortoise-shell Daviel's spoon, when the lens placed itself in the opening, and by a little additional pressure above and below was entirely expelled. By gently rubbing and pressing upon the closed lips, some remaining cortical matter was removed. The pupillary margin of the iris having entered the wound, it was carefully pushed back by means of a curette, when the pupil became round. An eight-grain solution of sulphate of atropia was instilled, a bandage with a compress of lint was lightly applied, and the patient was put to bed.

At the time of making this report, ten days after the operation, the patient is still in the hospital, and is doing well. A strong solution of atropine has been instilled twice daily. He has no considerable pain or inflammation in the eye, the corneal wound is healing finely, and the cicatrix is not easily seen at a short distance. He has sufficient vision to promise eventually a good result in this respect.

Dr. R. J. Levis, one of the surgeons to the hospital, has operated by this method of Liebreich upon fourteen cases of cataract, with a good result in every case.

PROF. NÉLATON.—Private advices announce that the health of this distinguished surgeon is much improved, if, indeed, the accounts of his illness were not from the first considerably exaggerated. It is to be hoped that both statements are true.

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EDITORIAL.

OUR DEALINGS WITH THE INSANE.

IT would be idle to deny that great defects exist in the present system of management of the insane, or at least in its practical working in this country. The subject is one of such magnitude that anything like a discussion of it here would be out of the question; but we would urge certain points on which, in the light of recent developments, the necessity of reform seems most pressing.

And first, as to the profession at large. The curriculum of every medical school should include the study of the diagnosis, and to some extent of the treatment, of mental disease; not merely as a branch of medical jurisprudence, but as one of the qualifications for the ordinary practice of the profession. Every physician should have such a knowledge of insanity, of its physical and psychical symptoms, as to enable him to recognize it and its counterfeits; as to enable him to say intelligently what are the prospects from medical or moral treatment, and to judge whether removal to an asylum is or is not necessary.

Secondly, as to the process of placing the insane under restraint. Unless the legal forms are disregarded, it would seem that ample securities are provided to insure the admission of none but suitable cases into our hospitals. An unnecessary multiplying of difficulties would work evil, and perhaps very great evil, in the other direction. It may be, however, that the responsibility attaching to the giving of certificates in these cases is hardly enough realized; and the signatures appended to them should certainly be at least as carefully scrutinized and verified as those of a bank-check. We know of one instance in which a patient was taken into an insane hospital upon a certificate signed by two physicians in a neighboring State, endorsed by a physician in this city who did not know their signatures to be genuine, and whose handwriting, like theirs, was unknown to the physician of the institution.

In regard to the rectifying of mistakes and the release of those improperly confined in insane asylums, the actual fact seems to be, in the opinion of those best qualified to judge, that they are so rare that the existing provisions are ample. There would be continual appeals, attended with much needless trouble and expense, if the patients themselves were allowed to make application to the courts whenever they thought themselves wrongly detained.

Thirdly, as to our asylums. Most of these, in our humble opinion, are too large for the control, both administrative and professional, of any one person. They are in one sense too private; they are not under the inspection of any disinterested authority. On the other hand, in large institutions of the kind it is impossible to avoid much exposure of patients to sometimes ill-natured and gossiping observers.

Again, we cannot but think that far more important contributions to the general stock of knowledge on the subject of insanity ought to have been made by those in charge of our great and expensive hospitals. This, however, is in most cases rendered impossible by the pressure of daily duties.

Other topics suggest themselves, such as the proper disposal to be made of criminals shown to be insane, and the best way of providing for the care of the insane poor.

In all these matters the profession are deeply interested, and there are those among us who could speak knowingly upon them. We should be glad to receive communications bearing upon the solution of difficulties of such vital concern to human progress.

THE HOTTEST MONTH AND HOTTEST SUMMER ON RECORD.

IT can hardly be necessary to apologize for placing before our readers, in this prominent position, the following statistics, which speak for themselves:

	1871.	1872.
Mean Temperature of Eighth Month (August), per Pennsylvania Hospital . . .	78.49 degs.	81.64 degs.
Highest point attained, do. .	92.50 "	97.00 "
Lowest point during do., do. .	64.00 "	58.00 "
Rain during the month, do. .	5.97 inch.	8.31 inch.
Deaths during the month, being for four current weeks for 1871 and five for 1872 . .	1300	2146
Average of the mean temperature of Eighth month (August), for the past *eighty-three* years		73.33 deg.

Highest mean of temperature during that entire period, *this year*	81.64 degs.
Lowest mean of temperature during that entire period, 1816	66.00 "

SUMMER TEMPERATURES.

Mean temperature of the three Summer months of 1871	78.88 "
Mean temperature of the three Summer months of 1872	80.09 "
Average of the Summer temperatures for the past *eighty-three* years	73.67 "
Highest Summer mean occurring during that entire period, *this year*	80.09 "
Lowest Summer mean occurring during that entire period, 1816	66.00 "

In reference to the intense heat the above speaks for itself: "*The hottest month and the hottest summer on record.*" The nearest approach for the *month* occurred in 1863—79.50 degrees, and for the *summer* 1870—78.88 degrees. The month previous, it may be remembered, was also the hottest Seventh month ever known here, while the *Sixth* had only been exceeded *twice* during the long period of *eighty-three* years, viz., 1865, only a fraction of a degree, and 1870, about a degree and three-quarters.

While the Pennsylvania Hospital records 97 degrees as the highest point reached *there*, there were some localities in the city, very much exposed to the heat, where the mercury touched 102 degrees in the shade.

The rainfall for the past three months has been unusually large, the following table giving a statement of former years:

Summer of	June.	July.	August.	Total.
1872, . .	4.22	11.22	8.32	23.76
1871, . .	3.77	6.81	5.97	16.55
1870, . .	2.86	3.95	5.12	11.93
1869, . .	6.58	2.88	1.28	10.47
1868, . .	4.37	3.51	2.65	10.53
1867, . .	11.02	2.38	15.81	29.21
Mean, 35 years .	4.10	4.08	4.97	——

In comparing the *mortality* for the month of *this* year with *last*, it must be borne in mind that in 1872 records *five* weeks, and 1871 only four. While on this subject, it may be well to add that for the week ending 6th of Seventh month (July), *this year*, 764 deaths were recorded, while the nearest approach to it during the past twelve years, we find, by an examination of the article above referred to, to have taken place "in the week ending July 21, 1866, viz., 739."

We owe these observations to Mr. J. M. Ellis of this city.

PRAYER AS A REMEDY IN SICKNESS.

IT is stated in foreign medical journals that a proposition has been made to set apart certain wards in hospitals, the patients in which should simply be prayed for. We can hardly think that Prof. Tyndall, whose name is coupled with this suggestion, could have really given his countenance to a scheme so totally opposed to all the principles of common sense. As well might a business man expect his affairs to prosper, or a farmer his crops to flourish, by praying for success, without the use of any ordinary means. The fable of the teamster whose wagon was stuck in the mud, and who, imploring the aid of Hercules, was told first to put his own shoulder to the wheel, is familiar to every schoolboy.

These remarks are made in no spirit of irreverence or unbelief, but in the conviction that true religion asks for no miracles.

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times.

DEAR SIR,—In your last issue Dr. Peugnet replies to what he is pleased to call my "attempted philippic" upon his paper on the veratroidal alkaloids. In the beginning of this philippic, I spoke of his paper as "exceedingly interesting," and I will now add to this, in many respects, able; but I still think he is wrong in some of his conclusions, and also claim that my treatment of his article was throughout entirely respectful and within the bounds of courteous criticism, except it was in the use of the words "curious blunder," for which I now desire to substitute "error." I acknowledge that I did read the chemical portion of his essay somewhat hastily, and, by missing a single sentence, did state too strongly what I still believe, that the chemical investigation was not carried far enough to settle a disputed question.

In regard to the "curious blunder," Dr. Peugnet has entirely failed to understand the point I raised. It was *not the truth of the fact* that section of the par vagum arrests the vomiting and purging of veratria-poisoning that was questioned by me; but it *was the deduction* which he attributed to me, namely, *that therefore it is through these nerves that the alkaloids act on the intestinal tract*, that I objected to.

All these are, however, side issues, as are several others raised by him, and must be passed by without further notice, as space and time are valuable. The main issue is in regard to the physiological action of viridia. It is but justice to state that I read this portion of his paper carefully before writing the criticism, and further study of it has confirmed me in the opinion that his experiments were not sufficiently elaborate to establish his points, and that his explanation of the asserted discrepancies in our results cannot be true.

I used a principle, veratroidia, and got a certain amount of sedation. I used another principle, viridia, and got a greater amount of sedation, grain for grain. It is simple nonsense, then, to assert that the sedative powers of the latter alkaloid depended upon a contaminating portion of the former, because the less is never more than the

greater, and if the grain of viridia owed its sedative influence to a quarter of a grain of veratroidia contaminating it, then that quarter of a grain of veratroidia was stronger than the whole grain of the pure veratroidia. If this is not clear, I cannot make it clearer, unless by an equation. Let x = sedative power of a grain of veratroidia. $\frac{1}{4}x$ = sedative power of $\frac{1}{4}$ grain of veratroidia; and if Dr. Peugnet's explanation be true, o represents the sedative power of $\frac{3}{4}$ grain of viridia. Then the equation will be $\frac{1}{4}x + o = x +$ something. I would not reiterate this idea, had I not been misunderstood previously by Dr. Peugnet.

There is no use in trying to reconcile my results with his conclusions. One or the other of us did not observe his experiments closely.

Further, I assert that there is nothing at all obscure in my previous criticism in regard to the existence of paralysis in cases of poisoning by viridia.

It must be borne in mind that the experiments of Dr. Peugnet are very crude; that there was no attempt whatever at measuring the condition of reflex action; that there was no record kept of the immediate cause of death, or of the power manifested in the convulsions. Yet in Experiment XXI., he says, "a general tremor, followed by a *partial loss of power*, more marked in the anterior extremities," and in two out of the three fatal experiments, it was noted that before death had drawn near the convulsions had grown weaker, so that death was presumably not from the convulsions. With the positive results of my own much more elaborate experience too fresh in my mind, I certainly looked on these facts as indications of paralysis, and I yet believe that, in these experiments of Dr. Peugnet, paralysis was really present.

Dr. Peugnet certainly makes a vital mistake in supposing that the use of a cardiometer or some similar instrument is not necessary to the experimental study of the circulation. The mere number of cardiac pulsations is of very little moment; for every practitioner knows that an exhausted, depressed heart will often beat very frequently, especially when it is irritated by emotion, muscular action, convulsions, etc., all of which disturbing causes were present in a high degree in his experiments. I must then reaffirm my judgment that his physiological study of the action of viridia upon the circulation was not deep enough to be of any real value.

My paper on viridia was a maiden attempt at a physiological investigation, and was not as complete as it might have been, but the experiments were carefully elaborated and noted, as far as they went, and their results cannot be overthrown by experiments in which not a single one of the modern methods or appliances was used, *especially as my results are in strict accord with those of previous experimenters.* As far as I am concerned, this matter must end here. The facts are now plainly before the profession, and any further discussion would partake too much of the character of a personal controversy to suit my views.

H. C. Wood, Jr.

To the Editor of the Philadelphia Medical Times.

DEAR SIR,—Can you enable me to get out of a difficulty? Here is the position in which I am. It reminds me a good deal of one I read of when studying Renwick's Natural Philosophy, some thirty years ago. It appears that Galileo announced that bodies having the same specific gravity would reach the ground in the same space of time, when allowed to fall from a given height. To prove this, he went, accompanied by a committee of philosophers, to the top of the leaning tower of Pisa, and two stones of the same material, differing in size, were allowed to fall to the ground. They came down exactly at the same time. The committee, however, decided that they did not, *because Aristotle said they would not.* A similar yielding to authority was hardly to be looked for at the present age of the world, and in this bold country; and yet I have met with it, and wish to present it to you.

When I began to treat patients myself, I naturally used the same means, and employed them in the same way, as I had seen practised with satisfactory results by my teachers. When, however, in certain venereal cases where I had seen Ricord, Nélaton, and others give the protiodide of mercury, and the symptoms disappear, I endeavored to give it myself, I found very often the patients could not take it. I soon learned, again, that this medicine when procured at the shops of certain apothecaries, where it was either better made or better kept, could be taken without trouble, and with all the good effect observed in France.

Now, again, there are certain syphilitic symptoms that are neither altogether secondary nor altogether tertiary, but are what Ricord calls symptoms of transition.* To cause these to disappear, I was always taught that it was necessary to give the iodide of potassium, while you were giving at the same time the iodide of mercury. I had seen Ricord do this any number of times, and any one can see for himself what his opinion is, at page 629 of the work just cited. He says there, "When transition symptoms exist, from secondaries to tertiaries, . . . treatment by the iodide of potassium alone is not sufficient, and mercurials must be added. Here again, except in certain indicated cases, it is the protiodide of mercury that I prefer." I have myself reported cases, under the care of Nélaton, where the protiodide of mercury, in half-grain doses, was given in the evening, and the iodide of potassium, in fifteen-grain doses, in the morning, for weeks and months.†

Now, in these cases of transition symptoms I have for years been perfectly satisfied with the result of this treatment, *when the medicines were procured at certain shops:* those where the protiodide of mercury was good.

Some days ago I was stopped in the street by a member of a firm of apothecaries in this city, who wished to say how much he was aggrieved at my having directed a patient to cease taking these medicines, which had

* See Ricord's edition of Hunter's Treatise on Syphilis, page 580.

† See Clinical Lectures on Surgery, by Nélaton, pp. 614, 618, etc.

been procured at his shop, and were causing serious symptoms, and to have the prescriptions compounded elsewhere. The blame, he said, for the occurrence of these symptoms, was to be attached to the prescriber, and not to the furnisher, of the drugs. For his own benefit I invited him to my office, where I could show him the authorities just referred to. Notwithstanding all this, and notwithstanding his meeting in the office a patient who was then submitting to this very treatment with the most marked benefit, and with no abdominal inconvenience whatever, he left me, declaring that it was impossible to use the medicines at the same time; he had so been taught at the School of Pharmacy, and of course it was so; and, moreover, that he should refuse to put up the prescriptions, were they to be offered at his counter.

Now, Mr. Editor, while exceedingly perplexed by not being able to have a favorite prescription put up at the counter of this particular shop, and having recourse to you for help in the matter, I must own to feeling great delight at meeting with such reverence for a teacher's instructions, and such self-sacrificing scrupulousness in protecting patients from the mistakes of a physician. It is not the only instance I have myself met with of extraordinary care at this same shop. Some years since, having something to do with the appendix of formulæ attached to Druitt's System of Modern Surgery, I copied a prescription, thus:

℞ Bismuthi trisnitratis,
Pulveris acaciæ,
Sodæ bicarbonatis,
Singulorum, ℈j;
Pulveris zingiberis, gr. v.

Misce, fiat pulvis.

It was carried to this shop, and a boy employed there brought it back, saying that Mr. —— said I had forgotten to put the quantities of bismuth, soda, and gum arabic, and they had no *singulorum* in the shop.

WALTER F. ATLEE.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, SEPTEMBER 12, 1872.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. J. H. CATHCART exhibited a specimen of *cancer of the pylorus, duodenum, and pancreas*, adherent also to the upper periphery of the *right kidney*.

The specimen was removed from M. A. B., æt. 46, who died Sept. 7, 1872; she was a widow, and a native of Ireland.

She first suffered from metrorrhagia nearly ten years ago; this at times was quite profuse, and very little influenced by treatment, but ceased some four years since, and did not return until about two months ago, when she had a slight hemorrhage, which, however, required no treatment.

She had also complained at times, for several years, of an intense burning pain in her stomach and in her back, both between her shoulders and in the lumbar region; also of swelling of her hands and face. These symptoms all yielded to treatment, so that at times she was entirely free from pain; but her appetite was very variable, and generally her digestion was fair, though she vomited occasionally after eating. For a few weeks before her death, she could retain scarcely anything on her stomach, vomiting half a dozen times a day whatever nourishment she might take, together with a dark-brown "coffee-ground"-like fluid. She presented the so-called cancerous cachexia.

On post-mortem examination, made by Dr. Porter and Dr. Cathcart, the stomach was found filled with a dark-brown fluid resembling that which had been vomited during life. The mucous membrane was pale and anæmic, and at the pylorus was a large cancerous mass which nearly closed the orifice, and involved also parts of the duodenum and pancreas; the latter being somewhat enlarged. The spleen and liver appeared normal in size and appearance. The kidneys were normal in size, but fatty, and the surface of the right one was adherent to the cancerous mass.

The womb was hypertrophied, pale, fatty, and in the cavity was found a small pediculated polypus.

The specimen was referred to the Committee on Morbid Growths, who reported that the case was one of *simple scirrhus of the pylorus*. Also that the infarctus in the kidney proved to be a simple embolic patch, the centre of which had undergone softening.

DR. C. M. CHESTON exhibited, for Dr. Packard, a specimen of *abscess of the kidney*, from W. E., white, sailor, aged 39. Was admitted to the Episcopal Hospital on the morning of the 10th of August, 1872. Stated that he was knocked off one of the coal-wharves at Port Richmond on the night of the 9th, by a couple of seamen who wanted to rob him. He admitted, however, that he had been drinking, and did not remember whether any words had passed between them before he was struck, or not. Was brought to the hospital by two policemen, who found him lying under the wharf, not insensible, but utterly helpless. Upon examination, it was found that he had fracture of both wrists (Barton's), but he had (to all appearances) internal injuries of a much more serious nature. Complained of very great pain over the region of the bladder on the slightest pressure. Shortly after his admission he passed about one ounce of bloody urine voluntarily. After this his water was drawn off for him with the catheter, but in no instance did we succeed in getting more than two ounces. Ordered morph. sulph. gr. ¼, by the mouth, in the afternoon; and, the pain being very great, the dose was repeated late in the evening. On the morning of the 11th he was more comfortable. Catheter was introduced, and we drew off about the same quantity as that passed at each introduction of the catheter on the preceding day. The pulse and temperature about normal. Flaxseed poultices ordered over the seat of pain. On the afternoon of the 11th he asked for a urinal, and passed about eight ounces of urine, tolerably clear; this he did again at seven in the evening. On the morning of the 12th he seemed quite comfortable, though the tenderness over the lower part of the abdomen still continued. The abdomen was considerably distended and tympanitic; pulse 120. He was ordered twenty-five leeches over the abdomen; verat. virid. gtt. vj in mist. neutral. ℥ss, every four hours. In the evening his pulse had risen to 135; he voided his urine voluntarily and without difficulty. August 13, he seemed quite comfortable, had less pain; his pulse 96; but at 6.30 P.M. he was not quite so well. From this date his pulse gradually rose in frequency until it reached 128. August 21, he was not so well, had more pain over abdomen and

over the region of the liver. He was also considerably jaundiced, and had some diarrhœa, with a pulse of 124. August 23, he was about the same, with a pulse of 120, diarrhœa continuing. He was cupped over the seat of the pain, and ol. terebinth. gtt. x was administered every three hours. On August 24 he seemed better; had not so much pain, and was quite cheerful. August 30, to all appearances, presented a well-marked case of typhoid fever; pulse 140. His condition was not materially changed until September 3, when he began to sink rapidly, and died September 4, at 6 A.M.

The post-mortem was made in the afternoon of the same day, when there was found general peritonitis; the peritoneum being very much thickened. The liver was very large and fatty, and weighed six pounds. The spleen was large, firmly attached to the peritoneum, and weighed two pounds. Both kidneys were enormously enlarged, left kidney particularly so, its weight being three pounds; that of right, one and one-half pounds. Both contained cysts which were filled with a purulent liquid. The intestines were healthy. The bladder was contracted, and its walls were very much thickened.

REVIEWS AND BOOK NOTICES.

PRACTICAL LESSONS IN THE NATURE AND TREATMENT OF THE AFFECTIONS PRODUCED BY THE CONTAGIOUS DISEASES; with an Account of the Primary Syphilitic Poison and of its Communicability. By JOHN MORGAN, A.M., M.D., Surgeon to Mercer's Hospital and to the Westmoreland Lock Hospital, etc. etc. Small 8vo, pp. 335. Philadelphia, J. B. Lippincott & Co. London, Baillière, Tindall & Cox, 1872.

From a perusal of the book before us, it is at once evident that Dr. Morgan has had unusual opportunities for the study of venereal disease, both in private and hospital practice; but the manner in which he has chosen to present this experience is most unsatisfactory to the reader. The volume lacks several essential elements, the most patent of which is the total absence of order and system in the arrangement of the matter presented, paragraphs and chapters being grouped with no attempt at classification. In many instances the statements are vague, and the exact meaning difficult of comprehension, while here and there through the work the same subject-matter is dealt with more than once.

Dr. Morgan professes himself a "unitist," believing that rarely, though occasionally, the soft sore may be followed by syphilitic manifestations. Decidedly the most interesting feature of the book, however, is the statement, followed by a series of experiments, that the product by inoculation of the vaginal discharge of a patient suffering from syphilitic infection, is a chancroid, or soft sore; and further, that this sore is propagated as a chancroid, and is again capable of propagation still as a soft sore or chancroid. Hence the possibility of acquiring constitutional syphilis from the vaginal discharge of a syphilitic woman, though no sore be present. Dr. Morgan is a firm believer in the proper use of mercury, and gives preference to the inunction treatment, accompanied with small doses of Zittmann's decoction. He also expresses himself in favor of syphilization. The volume is extensively illustrated with wood-cuts, some of which are emphatically poor and totally out of place in a work claiming to take a position in literature. Though the work contains much of interest and novelty, evidently the result of study and observation with a large clinical experience, yet we cannot help thinking that the author would have benefited the profession more had he taken time to arrange his material and bring out his points. That the book was written hastily is but too apparent.

THE TEN LAWS OF HEALTH; or, How Disease is Produced and can be Prevented. By J. R. BLACK, M.D. 8vo. Philadelphia, J. B. Lippincott & Co., 1872.

This work, as its title indicates sufficiently, is intended rather for the instruction of the public than for the reading of professional men. And we wish it, and the books like it, could be more widely disseminated and read. Not that we wholly agree with the writer in all his points,—for example, in his absolute condemnation of all use of tea, coffee, and tobacco,—but in the main we think his views are sound, and that the welfare of families would be promoted by the adoption of them.

The "Laws" relate to pure air, adequate and wholesome food and drink, adequate out-of-door exercise, adequate and unconstraining covering for the body, the exercise of the sexual function, place of habitation, pursuits, personal cleanliness, tranquillity of mind, and intermarriage of blood relations.

We cannot but note the excellent mechanical execution of this volume.

GLEANINGS FROM OUR EXCHANGES.

HYGROMA CYSTICUM COLLI CONGENITUM.—K. Koester (*Verhandlungen der Physic.-Medic. Ges. in Würzburg*, n. f., Bd. iii. S. 18.)

A well-formed child, born at full time, came into the world with a large tumor the size of an apple hanging from the inferior maxilla on the right side, and occupying the entire sub- and retro-maxillary region.

The tumor was covered with movable integument, and fluctuated upon palpation. The amount of transparent fluid contained in the tumor steadily increased for three months, extending from the inferior maxilla to the clavicle, and from the median line in front to the anterior edge of the trapezius muscle on the back. Since difficulty of breathing now set in, several of the sacs near the surface were opened, but only a very small amount of purely serous fluid was extracted.

The wound healed by first intention, but in six weeks phlegmonous erysipelas broke out in the cicatrix, and rapidly passed, in some parts of the growth, to suppuration, and in others to gangrene of the skin; death soon resulted from exhaustion in the fifth month after birth.

Respecting the other organs of the body, the post-mortem examination was of a purely negative character. The tumor, now as large as a child's head, had extended beyond the limits already described, had broken through the fascia superficialis colli, and completely surrounded the sterno-cleido-mastoid muscle, as well as the large vessels of the neck, which, however, were uninjured.

The deeper part of the tumor reached the base of the skull and the somewhat narrowed meatus auditorius externus, the inferior maxilla and the vertebral columns. The tumor possessed no proper capsule, but the component chambers were separated by a very delicate membrane from the neighboring tissues, into which they had inserted themselves like an infiltration.

Upon incision a large quantity of clear fluid escaped, which in the region of the purulent infiltration appeared slightly opaque and tinged with blood. The clear fluid contained a few lymph-corpuscles and a small quantity of epithelial débris, while the opaque fluid was rich in pus-corpuscles and fatty, broken-down epithelium. A section of the tumor revealed a series of spaces filled with fluid, and closely pressed together. These were varied in size from that of a millet-seed to that of a walnut, and assumed very diverse shapes from pressure. The same delicate membrane already alluded to formed the partition between the component parts of the morbid growths.

Injections of Prussian blue into the collection of cysts revealed a system of delicate connecting canals between the component parts of the tumor. An examination of a portion of the tumor hardened in alcohol revealed an epithelial lining in the larger cavities, which showed all the features of pavement epithelium upon the application of a solution of nitrate of silver. The cells, which were invisible in the simple preparation without reagent, had the form and general appearance of the endothelium of lymphatic vessels, and only here and there, in the region of the purulent infiltrations, manifested the various stages of fatty degeneration.

In the centre of the tumor there were many spaces filled with coagulated blood, which in some places appeared to be fresh, while in others it manifested the various stages of retrograde metamorphosis. Since, therefore, amorphous as well as crystalline pigment was found in the tumor, and since extravasated blood was found in the trabecular septum dividing the cavities from each other, it is evident that the case was not one of ordinary angioma cavernosum, but of hemorrhage into the cysts composing it.

The peripheral cavities grew smaller, and the interstitial tissue separating them increased in thickness; at the same time the communicating canals became coarser and were found closer together. These topographical changes produced the appearance of irregular and varied anastomosis between ordinary lymphatics. Near the centre, these cavities contained fibrinous coagulations, but towards the periphery they were empty and collapsed.

The interstitial tissues which divided the cavities from each other were composed of connective tissue, rich in fibres and cells, and contained, here and there, peculiar round nodules; these were composed of a mass of lymphoid cells, supplied with from one to four nuclei, within a delicate and vascular reticulum, which became coarser towards the periphery, and united with the trabeculæ which surrounded the larger spaces.

Koester regards these nodules as lymph-follicles, the coarse net-work at the periphery as lymph-sinuses, and the surrounding larger canals and cavities as distended lymphatic vessels.

In the region of the purulent infiltration, a large number of small round cells were found, as well as numerous large, stellate, anastomosing cells, with swollen and opaque contents.

These appearances were due to the distention of the initial lymphatics within the interstitial trabeculæ, with fibrinous and granular fatty contents from the cysts, which had been forced from the adjacent cystic cavities as a result of an overflow of their contents. In attempting to force Prussian blue directly from the cutaneous surface into the cysts, the lymphatics of the skin as well as a number of the cysts became filled with the injected fluid.

Since, however, extravasation of the coloring-matter occurred, it must remain undecided whether the coloring of the contents of the cysts was accomplished by the direct way of the lymphatic vessels or not. Ponfick, in a criticism upon the case, in the *Centralblatt für die Medic. Wissenschaften*, 20th July, 1872, says the general communication of the cavities with each other, the direct passage of the wall of the cyst into the dilated canals, and the connection of the latter with the sinuses of undoubted lymphatic glands, the continuous epithelial lining of the inner surface, the purely lymphatic nature of the fluid contents, prove beyond doubt that the case is one of distended lymphatic vessels. The tumor must, therefore, be characterized as lymphangiectasia congenita.

An Alleged Death in New York from Nitrous Oxide.—The *Lancet* thus comments on this unfortunate affair, mention of which was in all the daily papers a few months since: "We have received from New York the particulars of a case in which death speedily followed the extraction of teeth after an ineffectual endeavor to administer nitrous oxide gas. A jury of ten persons, each of whom wrote M.D. after his name, returned an elaborate verdict, commencing with the finding that the deceased 'came to her death from asphyxia or apnœa, as evidenced by the symptoms manifested by the patient before death, and the conditions found at the post-mortem, the asphyxia having, in our opinion, been induced by the inhalation of gas administered.' This is followed by certain comments or riders concerning the mode of preparation of the gas used in the case, and concerning the qualifications of persons by whom gas is administered.

"Upon such a finding, it is very possible that the case may come to be recorded as one of death from nitrous oxide; and, as the facts will by no means bear such an interpretation, it seems worth while to call attention to them in detail. . . .

"Upon the testimony, however, the facts seem to admit of only one interpretation. The nitrous oxide could have had no more to do with the fatal issue, either directly or indirectly, than if it had never been brought into the room. The patient manifestly fainted from terror, doing so as soon as her state of mental tension was relaxed by the operation being completed. Her syncope was just a result of the reaction of an overstrung nervous system; and, if Mr. Newbrough had only laid her flat on the floor, she would probably have recovered in five minutes, have paid him his fee, and have walked away from West Thirty-fourth Street as well as the entered it. It was the unwisely holding her upright that determined the fatal issue; and although one must sympathize with the queer medical jury to the extent of admitting that no anæsthetic agent should be intrusted to a man who treats syncope by the erect posture, yet still, when we consider the wide prevalence of his error, we must not be too hard on the dentist. We have lately heard of a case in which a poor woman fainted on an English race-course, and the strong arm of the law, in the person of a stalwart policeman, instantly erected her in a sitting position, with her back against a post. Fortunately, a medical man passed by in time to save her from death by laying her down again until she recovered; but the chances of her following Mrs. O'Shaughnessy were at one time fearfully great. Moreover, 'sitting up' is the most common cause of death after or during enfeebling illness. You hear from the nurse or the friends that the 'poor dear *would* sit up to take beef-tea,' or '*would* sit up on the nightstool,' and that he or she 'went off like a lamb.' We once witnessed a very sad scene, in which a group of relatives were holding up the corpse of a fine girl, who probably would have been in no danger if she had been allowed to remain where a faint had caused her to fall. Strangely enough, she was to have undergone an operation on the following day; and her death, if it had been twenty-four hours delayed, might easily have been attributed to chloroform.

"In this last circumstance—the possible coincidence in point of time of the administration of an anæsthetic with sudden death from some other cause—we have a factor that must never be lost sight of in such cases. There is one well-authenticated history of a man who went to have a tooth drawn, and asked for chloroform. The operator had none, and went a short distance to fetch it, to find his patient dead on his return.

"The absence in Mrs. O'Shaughnessy's case of any apparent cause for sudden death other than emotional syncope and the upright posture, and the entire sufficiency of these to explain the occurrence, seem to render the verdict of the New York jury one of the most

astonishing on record. It can hardly fail to be challenged by American medical journals, and we shall be curious to see what attempts are made to justify it."

A Rare Case of Vascular Anomaly (C. Aeby: *Corresp. Bl. für Schweiz. Aerzte*, Jahrg. II., No. 6).—At a post-mortem examination of an old man, the following curious distribution of vessels was found, the chief peculiarity of which consisted in the fact that the abdominal aorta gave off only two large branches instead of three. The cœliac artery and the superior mesenteric artery arose from a common trunk, which was given off at the aorta from the usual point of origin of the superior mesenteric artery. The common trunk of these important vessels was very small and thin in its central portion, but suddenly enlarged after sending off the hepatic artery and a branch which instantly subdivided into a series of small vessels to the spleen, the stomach, and the small intestines, in order to anastomose with the normal inferior mesenteric artery by means of a long arch, which followed accurately the flexura linealis and the pars descendens coli, as well as a part of the sigmoid flexure.

The immediate cause of this abnormal connecting branch between the two mesenteric arteries appeared to be an almost complete thrombosis in the narrow initial portion of the arterial trunk, produced by a calcareous and aneurismal dilatation of the aorta, which had rendered the arterial trunk almost impervious as far as the point of origin of the hepatic artery. In alluding to this case in the *Centralblatt für die Medic. Wissenschaften*, July 27, 1872, Ponfick says that a portion of this anomaly may be regarded as congenital, but that much is due to the later chronic changes in the vascular apparatus.

Hypertrophy of the Tongue (G. Maas: *Arch. f. Klin. Chirurgie*, xiii., B. 3, H.).—In the surgical clinic in Breslau, during the past year, there were five cases of hypertrophy of the tongue reported. They were all congenital in their origin; the tongue was, in some instances, affected on one side only; in others, throughout its entire structure. In one case the hypertrophy of the left half of the tongue was accompanied by hyperplasia of the entire left half of the body. All the cases were treated by means of the galvano-caustic. The microscopical investigation in one case, two years old, revealed complete hyperplasia of all the tissues of the tongue, and, in three others, new growths of connective tissue and vessels, so that the tongue was completely metamorphosed into a spongy, cavernous mass.

The least amount of tissue-changes was in a patient three years old, a greater amount in one of twelve years, and the most prolific changes had occurred in a patient twenty-one years old.

Hence the conclusion that every case of macroglossa first consists of hyperplasia, to which is added increase in connective tissue and vessels, as a secondary result of continual irritation caused by the enlarged and protruding tongue.

Anchylosis of the Inferior Maxilla cured by the formation of a false joint on each side (G. Maas: *Arch. f. Klin. Chirurgie*, xiii., B. 3, H.).—A man, 27 years old, had had in his seventh year an attack of scarlatina, which left him with an inflammation of the maxillary articulation on both sides, which was followed by complete anchylosis. Both the inferior and superior maxillary bones had suffered in consequence an arrest of development. Middeldorpf excised on one side, and subsequently Fischer on the other, a wedge-shaped piece from the inferior maxilla, the base of the wedge being downwards, according to Esmarch. The mobility had remained perfect at the time of the report, four months after the operation.

Swallowing a Fork (*Berliner Klinischen Wochenschrift*, July 8, 1872).—In the proceedings of the German Chirurgical Society, Herr von Adelmann makes the following statement:

Very lately a man in Italy has excited great interest in the public mind, as well as among the members of the profession, by having swallowed a fork. Herr von Adelmann says that he has heard of five similar cases: three occurred in France; in two of these cases, gastrotomy was performed with success, and, in one case, the fork passed out with the fæces twenty months after it had been swallowed.

The speaker then proceeded to narrate a case which occurred in Russia.

A peasant in Wiatka, during an attack of delirium tremens, swallowed a fork with a wooden handle, the whole being five inches long. For six months after this act he suffered from pain in the stomach, loss of appetite, and repeated attacks of vomiting. At last he presented himself for treatment at the hospital, when an examination revealed, between the seventh and eighth ribs on the left side, a fluctuating spot with a fistulous opening, discharging an offensive pus, and through which a metallic body could be felt.

The fork was removed by Dr. Hohlbeck from the abscess which had thus formed on the left side. After the discharge of a few pieces of the seventh and eighth ribs, the abscess healed. The patient died three months later from other causes, and at the post-mortem examination the wound of the stomach was found to be perfectly adherent to the adjacent tissues, unaccompanied by any disease in the latter.

The fifth case alluded to by Herr von Adelmann was relieved temporarily by gastrotomy; and, in conclusion, he recommended in such cases generous diet, pushed to distention, in order to allow the fork to pass more readily through the pylorus, or to cause a more rapid adhesion between the stomach and the abdominal coverings, or to prevent entirely any injury of the stomach by the fork.

It is also evident, even from the slender experience given by these cases, that secondary gastrotomy is practicable.

MISCELLANY.

New Professorship.—A Professorship of Ophthalmic and Aural Surgery has been established in the Royal College of Surgeons, in Ireland, and Mr. Henry Wilson, Surgeon to St. Mark's Ophthalmic Hospital, and Examiner in Ophthalmic Surgery in the Dublin University, has been appointed to it. This, says the *Medical Times and Gazette*, is the first of the kind instituted in Ireland.

Indian Munificence.—Under this heading the same journal announces the offer of a donation of £20,000 to the funds of the new Medical College at Allahabad, from the Maharajah of Vizianagram.

This "heathen" example is followed by Lord Cadogan, according to the *South London Press*, in "supporting the Rate-payers' Association in Chelsea against the scheme of the Local Government Board in the erection of an infirmary for that locality, at a cost of £20,000."

Sir James Shaw Willes, Judge of the Court of Common Pleas of London, committed suicide October 3, while temporarily insane by reason of the extreme suffering consequent upon a severe attack of gout.

THE NAVAL MEDICAL BOARD for the examination of candidates for admission and promotion in the medical corps of the navy, which has been in session in this city since 1868, has been re-convened in Washington, with the following officers: Medical Director Charles D. Maxwell, President; Medical Director William Grier, Medical Inspector Thomas J. Turner, Surgeons Albert L. Gihon and Richard C. Dean, members; and Surgeon Joseph Hugg, Recorder.

THE *Lancet* of July 13 says, "At an inquest held last week on the body of a French lady who died from heart-disease, a New York physician, Dr. Petitjohn, who was called as a witness, stated that for twenty years he had been coroner in New York, and that in that city the jury was always composed of six persons, a number which was found to answer admirably. Dr. Lankester admitted the effectiveness of such a plan in ordinary cases, but thought that in serious and difficult cases it was advisable to summon a jury of twelve."

A CURIOUS but by no means unusual lawsuit was lately decided in France. A surgeon extracted a piece of cartilaginous meat from the trachea of a lady, and charged her £20 for the operation. The lady considered the amount excessive, and said that Nélaton himself would not have asked such a sum. Dr. Nélaton was then appealed to, and said that, taking into consideration the position of the lady, the charge was moderate. Ultimately a jury awarded the surgeon £12.

DR. JOHN K. MASON, a well-known retired physician of this city, died on the 1st of October.

THE NEW GERMAN HOSPITAL.—The board of directors of the German Hospital have taken formal possession of the new hospital building at Corinthian and Girard Avenues, and the patients now in the old building will be removed into the new in the course of a few days. It is supplied at present with seventy-two beds, and the capacity of the institution will be increased in the spring.

IT is stated in the daily papers that on the 25th of August the wife of a physician, in the town of Canaan, N. Y., died from the effects of chloroform, administered to her by her husband for the purpose of extracting some teeth.

THE *Pall Mall Gazette* of August 15 says, "Strange scenes are to be witnessed in what Carlyle terms 'that monstrous tuberosity of civilized life, the capital of England.' That one family should collectively occupy one sleeping-room, is or ought to be a remarkable circumstance, but that ninety-two persons should sleep in three rooms is still more striking; yet it seems that such is actually the case at No 1 George Street, near Worship Street. On Tuesday a witness was called to prove an alibi in a case tried at the Middlesex Sessions,—a woman who keeps a lodging-house on the premises in question, comprising three rooms and a kitchen. In the course of her evidence it was elicited that, although no one slept in the kitchen, the three rooms were shared by ninety-two persons as sleeping-apartments, thirty sleeping in one room. Economy of space can hardly be carried beyond this point, unless people are stuffed up the chimneys, or allowed to repose in the cisterns and water-butts. The lodging-house, it was stated, is 'licensed,' and of course, if the authorities approve, there is nothing further to be said in the matter."

M. REVILLOUT, in the *Gazette des Hôpitaux*, quotes (*British Med. Journal*, May 31, 1872) certain statistics published by the French Minister of Public Instruction, in regard to the medical profession. In 1866, there were in France 11,643 doctors of medicine, being 1000 more than in 1847; while the number of *officiers de santé* was 5697, the decrease, as compared with 1847, being 2145. There was thus a total decrease of 1145 medical practitioners, notwithstanding that the population had increased from thirty-four and a half millions to thirty-eight millions. M. Revillout attributes this falling off in a great measure to the defective encouragement afforded by the State to high-class education.

A DISHONEST MEDICAL OFFICER.—The *San Francisco Post* of the 14th of August states that Dr. F. H. Engles, who has been for several years apothecary and assistant-physician of the city and county hospital in that place, but who lately resigned at the request of the Board, has been accused of systematically thieving from the hospital supplies committed to his charge. Drugs worth over $600 were offered by him to a New York house for $429.75, and suspicion was excited, which led to inquiry, and the detection of the crime.

Such breaches of trust on the part of physicians are, we are glad to be able to say, extremely rare.

THE EX-EMPRESS CARLOTTA was some months since said to have become once more violently insane, and to be failing rapidly in physical health; a favorable change has, however, again taken place in her condition.

RAILWAY AIR-CUSHIONS.—A writer to the *Medical Times and Gazette* refers to the fatigue of the limbs produced after a long railway journey as due mainly to the trembling motion of the floor under the feet, and states that, having suffered considerably from this abuse, he was induced to try the experiment of using the well-known air-cushioned footstool. This answered so well that he has never travelled without using one in this way, and has found the effect to be a remarkable improvement.

MORTALITY OF PHILADELPHIA.—The deaths reported at the Health Office for the week ending October 5, 1872, were 240; of which 118 were of adults, and 122 of minors. Among the causes assigned were:

Consumption of the Lungs	36
Other Diseases of the Respiratory Organs	29
Diseases of the Circulation	12
Diseases of the Brain and Nervous System	33
Zymotic Diseases	20
Casualties	10
Dysentery	5
Cholera Infantum	3
Old Age	10
Stillborn	15

SATURDAY, OCTOBER 19, 1872.

ORIGINAL COMMUNICATIONS.

A CASE OF ATLO-AXIAL DISEASE.

BY J. T. ROTHROCK, M.D.,
Wilkesbarre, Pa.

WITHIN a year I have had, through the kindness of a medical friend, a case of this somewhat rare disease to treat. I offer the following history for those who may be interested in it. The difficulty of diagnosis in the earlier stages of the affection, and the grave prognosis in the latter, tend perhaps to confer a value on each recorded case. Certainly, none of the somewhat elaborate descriptions I have read gave me a clear history of the *ensemble* of symptoms as I found them.

The patient was in early manhood, and had a constitution which seems to have been originally good. During the previous year, one manifestation of disease had succeeded another, until he was much reduced in strength and greatly depressed in spirits. The first trouble was of a rheumatic character, and had been well treated by his medical attendant. Immediately on recovering from this, his left foot took on an œdematous condition; then manifesting a slight sense of fluctuation, which led to the suspicion of pus. An incision, whilst it relieved the tension, failed to give exit to pus; in a word, the condition of the foot was like œdematous erysipelas. After the opening closed, a fungous growth rose from the cicatrix, and persisted for some months. At the time I first saw him, it had passed through the florid period of its growth, and assumed the pale hue of some condylomata. At the time, I thought but little of this tumor. I have alluded to these antecedents to show how much predisposed, by a lowered vitality, the patient was to a development of any disease which diathesis or accident might call into an open manifestation.

At this juncture all his troubles culminated in one still more aggravated. His neck became stiff, and so much swollen that the hollow existing in the occipito-cervical region disappeared, and there was a straight line from the occipital protuberance to the upper dorsal vertebra. For this, he went through a heroic course of cupping and blistering, along with other treatment more heterodox, under the idea that his trouble was merely local. The symptoms, however, continued with varying intensity for several months. Occasionally the patient would attribute them to a blow received when thrown headlong from his carriage some months previously, though this view was taken by him, apparently, only in the absence of any other probable explanation.

October 11, the medical gentleman in attendance, expecting to be absent some days, kindly placed him in my care, after himself seeing the patient but once or twice. The trouble being, just then, especially aggravated, was the occasion of his having requested the treatment of the medical friend to whom I allude, but who was obliged to be absent. My first impression was that, whatever the radical difficulty might be, the most urgent symptoms were those of tonsillitis. The hyperæmic condition of the fauces and the pharynx naturally led me to think this, and to act accordingly,—especially as the difficulty in swallowing was so greatly out of all proportion to any increase of pain or swelling in the occipito-cervical region.

I directed rest in bed, and a liberal course of guaiacum. In a few days the patient was out of bed, with the urgent difficulty removed, and attending to his business.

From this time I lost sight of him till October 31, when, his regular physician again being absent, I was requested to attend him.

He was now down with a fearful increase of all his previous suffering. The tonsils were enormously swollen, the half-arches œdematous to the highest degree, and the uvula, hanging down enlarged and tumefied, completely blocked up the entrance to the pharynx. The posterior nares were so closed that it was only possible by supreme efforts to breathe through them, and then only after lumps of hardened mucus had been expelled anteriorly, or drawn back into the pharynx. On pressing the tip of the finger against the back of the pharynx, it received the impression of touching a sodden mass. The entrance to the œsophagus was wellnigh closed. Spasm of the glottis occasionally imminently jeopardized the life of the patient. From all these inflamed surfaces ropes of tenacious mucus were blown through the swollen structures and out of the mouth. This was at first, even, effected with extreme difficulty, on account of the impaired mobility of the muscular structures involved, and at length became impossible, so that the sponge-mop was called into requisition. He could use the last (fortunately) most effectually; for all sensation was abolished in the parts, and no gagging was induced by the operation. Free inhalations of steam charged with nitrate of silver aided greatly in detaching the mucus, and in some slight degree, too, in restoring the muscular contractility, by its astringent properties. Yet each inhalation was dreaded, because of an impending suffocation, induced by so free a liberation of the mucus. To crown all this suffering, agonizing pain would shoot up the back of the neck and head, which the patient compared to a blow received on the head from a sledge-hammer,—a symptom which I afterwards learned to regard as of diagnostic value. Perfect nervous prostration was a mere matter of time under such circumstances, and the tendency to it was hastened by the unlimited quantities of narcotics which the suffering man was goaded into taking.

When in the erect position, the hands were applied one to either side of the occipito-cervical region, to support and steady the head and to relieve its inflamed base of support.

Looking at the case now from the vantage-ground of the experience it afforded, the diagnosis seems to be clear enough. At the time, however, I was obliged to eliminate simple though universal

pharyngitis, the previous rheumatic attack, retro-pharyngeal abscess, any specific disorder, and erysipelas of the mucous surfaces, and to seek for a diagnosis in another direction.

Was there a breaking down of the bony structures? This seemed to be the most probable conclusion, reasoning both directly and by exclusion. There was no evidence of pus pointing in a visible location, external or internal, neither did it appear to be gravitating down along the spinal column. I was aware of the fact that pus forming amid the deeper structures of the neck would, for a long time, give no external indication of pointing, and that if it did form there, it would, as remarked by Brodie, probably give the most marked signs of its existence at the side of the neck; hence the temptation to make a free incision just below the mastoid process was at times very strong. The statement of Chelius, that there is not usually any external diseased indication in the neck (when its bones are diseased), except that the patient cannot bear the least pressure, served to confirm my diagnosis.

A number of facts led me eventually to conclude that, whatever the essential element might be that caused the disease, I now had to do with a case in which the reparative power alone was unequal to the emergency, and that, if I regarded the common-sense, time-honored aphorism, to 'counteract the tendency to death,' it must be by treatment of the most tonic and supporting character. I had fairly tried the antiphlogistics, the sorbefacients, and the alteratives in their many combinations, my patient, in the mean while, becoming no better. The question now was, could he do worse if I tried the opposite? Moreover, the original treatment was predicated on the idea that the disease was a genuine hyperplastic condition, rather than what a clearer diagnosis pronounced the exact reverse.

Treatment now became, rest in bed, with the head supported and buried in a bran pillow, which acted as a splint, and which, when warmed, served greatly to mitigate the pain; discontinuance of all narcotics as fast as the patient could break away from them; generous diet, and tonics,—ferri vin. amar., tr. nucis vom., and Fowler's solution in combination, alternated with cod-liver oil and iodide of iron,—and they were pushed to the full extent of the patient's tolerance. In a few days this change produced a decided improvement.

Notwithstanding the continuance of the pain, there was an actual increase of weight. Still the throat remained swollen, but had lost its puffy feel, and when the back of the pharynx was touched, there was gained by the finger the sensation of a solid infiltration of the structures. Had I been less firmly convinced than I was of the accuracy of my diagnosis, I should probably have continued the exhibition of the mercurials and iodides to induce absorption of this mass.

December 3.—I noticed two small protuberances on the back of the pharynx. They were similar to the fungoid mass one finds over the fistulous openings to carious bone elsewhere. They gave me the last link wanting to complete the chain of evidence. The diagnosis was correct, and I had to do with a case of vertebral caries. In addition to the supporting regimen, I now maintained pretty constantly a mild counter-irritation over the back of the neck.

December 12.—Two small pieces of bone escaped from the openings beneath the fungoid granulations in the posterior wall of the pharynx. One was secured, the other was lost. The cause of all this intense, long-continued suffering seemed ridiculously small when compared with the aggravated effects produced. The piece of bone secured was not more than one-sixteenth of an inch thick, and less than one-quarter of an inch square surface. The piece lost was, in all probability, even smaller. Certain resemblances made me regard the piece I had secured as being the small process in front of the atlas, which is the homologue of the body of the vertebræ lower in the spinal column. It is the portion called by anatomical writers the tubercle. An accomplished medical friend in Philadelphia quite succeeded in convincing me that the portion came from the axis, as it was more nearly on its level; and so I had concluded to think, until September 5, 1871, when, after a period of comparative quietness for nearly a year, the neck again began to swell and the pharynx to become tumefied. A new portion of dead bone now appeared, and was secured, after which the swelling in great part disappeared. The shape and character of this fragment made manifest to me at once that my previous conclusion was correct; for this piece could be no other than the polished surface of the atlas, against which the anterior portion of the odontoid process rubs. One conclusion confirmed the other. September 13, 1872, another small fragment was secured from an undecided location. Its extrusion gave rise apparently to little or no local or constitutional disturbance.

At present, the patient seems to enjoy fair health and to suffer but little from the disease, though I am not sure that he is exempt from a return of it, under any exciting cause.

There is some swelling in the back of the neck, some huskiness of voice depending on pharyngeal changes, and some stiffness of the neck, with an apparent want of confidence in making quick, free movements; but the pain has almost gone, and the patient may be considered as doing well. At present it may be best to hazard no opinion as to the permanency of the cure, as this depends on so many contingencies.

ATROPIA IN THE NIGHT-SWEATS OF PHTHISIS.

BY J. C. WILSON, M D.

DURING the winter of 1870-71, while Resident in the Pennsylvania Hospital, I made, at the suggestion of Dr. Da Costa, in whose ward I was serving, some observations upon the influence of atropia in controlling the night-sweats of advanced phthisis. I now, by permission of Professor Da Costa, present the cases to the profession, reluctantly it is true, because my opportunities for pursu-

ing the investigation have been limited, but in the hope that the suggestion may not be wholly without fruit, in here and there affording relief—even though it be but temporary—to this distressing phenomenon of consumption.

The first case is given somewhat in detail, because the atropia was not resorted to until numerous other remedies had been thoroughly tried and had failed.

Case I.—William N., bed 3; admitted to the ward November 1, 1870; æt. 21. Both parents died of phthisis. He is very tall and thin; weight 123 lbs. His health has never been good, but he dates his present sickness from last May, when his cough began. There are signs of tubercular deposit going into softening at left apex, and some deposit throughout the left lung; crackling and markedly prolonged expiration at right apex. He has never had spitting of blood. There is marked clubbing of fingers. Cough troublesome; expectoration puruloid; some soreness of fauces; no thoracic pain; hectic and night-sweats constant and distressing. Appetite fair; bowels constipated.

Treatment.—On admission he was ordered Niemeyer's pill t. d., a tonic of gentian and nux vomica, and for the sweats ten drops of aromatic sulphuric acid at night. Milk-punch.

November 21.—Condition much the same; he has lost flesh since admission; the sweating is not controlled. He complains greatly of the suffering this symptom occasions him. It is so profuse that he is compelled to change his underclothing twice in the night.

Stop Niemeyer's pill; double the dose of aromatic sulphuric acid; continue the tonic. Sponging at bedtime with *hot* water ordered, and ol. morrhuæ added to treatment.

December 2.—The sweating continues. Stop the acid, and give in place of it tannic acid gr. v at night. The oil does not suit him—stopped.

December 9.—Tannic acid has not relieved the sweating at all—stopped. To take oxide of zinc gr. ij, with extract of hyoscyamus gr. j, four times daily. Also compound syrup of the hypophosphites, f℥ij t. d.

December 18.—The sweats are unabated. The man is losing ground very rapidly. Stop zinc; give atropia in granules gr. $\frac{1}{60}$ t. d.

December 30.—*Since the last note he states that the sweating has considerably diminished.* Complains of dryness of fauces; pupils are not affected.

January 3, 1871.—Throat very dry. Atropia discontinued. To take tinct. opii deodorat. gtt. xxx at bedtime.

January 8.—*Has had profuse sweats every night since the atropia was stopped.* Atropia to be resumed.

January 11.—*He states that there has been only moderate sweating since last note.* Pupils slightly dilated; fauces dry.

Pneumothorax suddenly supervened from the rupture of a cavity, and the man died, January 12.

The case was reported, under the head of "Clinical Notes," in the number of this journal of February 15, 1871, without full notes of the treatment. Mention is, however, there made of the effect of atropia in controlling the sweats.

Case II.—Samuel V. R., admitted to the ward February 13, 1871; æt. 24. No family history of phthisis. His illness dates from a severe cold, taken in November, 1870. Has never had spitting of blood. His cough was at first attended with a whitish expectoration, which gradually changed in character. It is now slightly purulent. The man presents the rational signs of progressing pulmonary consumption. The physical signs are, however, not proportionately marked. There is flattening of the chest anteriorly on both sides, with diminished expansion. There is prolongation of the expiratory murmur at right apex, with increase of vocal fremitus under the right clavicle, and relative dulness on percussion to lower margin of the second rib anteriorly, and to the middle of the scapula posteriorly. The harshness of the breathing extends to angle of the scapula. There is no crackling; occasional mucous râles in right side. The nails are incurvated and the fingers clubbed, more markedly on the left side. Appetite poor. During the last week he has had hectic and moderate night-sweats.

Treatment.—A pill containing iron, quinine, and digitalis; good food; milk.

February 23.—The sweating has occurred every night since his admission to the ward, and is more profuse. Ordered atropia gr. $\frac{1}{60}$, morning and evening; a small amount of stimulus to be added to his treatment.

February 24.—Sweating not affected; pupils not dilated; states that his throat is dry, but that this is habitual.

February 25.—*Last night there was very slight sweating, which was confined to the hands and face.* Pupils somewhat affected—he cannot read. Throat no dryer than usual.

February 28.—Since last note the sweating has been very slight; it does not disturb him. He thinks the granule at night makes him sleep better. The pupils are less dilated than at last note; can read with some effort. Throat no dryer than before he began atropia.

Case III.—Edward H., admitted January 13, 1870; æt. 20. Family history shows no tendency to consumption; parents both living, and eight brothers and sisters alive and well. His own health, he states, was very good until November, 1870.

The trouble commenced as a naso-pulmonary catarrh. Has never had hæmoptysis. Has lost flesh greatly; has cough with muco-purulent expectoration; appetite poor,—occasionally vomits after eating; bowels regular. There is a slight irregular hectic paroxysm, and profuse, drenching sweats at night. Fingers show markedly the Hippocratic deformity.

Signs of consolidation at both apices, most marked at right, where softening is already taking place.

Ordered, on admission, a pill of quinine, digitalis, and extract of opium, with external use of iodine; subsequently the treatment was changed to cod-liver oil and syr. ferri iodidi, with morphiæ sulph. at night.

February 13.—The case progresses; softening evidently taking place in upper part of left lung. The cough at night is alleviated by morphia. The night-sweats, which for a time were less troublesome, are again profuse; they occur almost every night, and he states that they are worse when his sleep is sound. Ordered atropiæ sulph. gr. $\frac{1}{60}$ in granule, morning and evening.

February 14.—His sweating was less profuse; complains of dryness of throat; pupils slightly dilated.

February 15.—Last night slept well; merely a little sweating of face and hands. Throat very dry; pupils moderately dilated; accommodation affected; can read only a few words at a time.

February 22.—Has had no sweating at night since last note. Complains of diarrhœa; has had for past two days five or six movements in the twenty-four hours; syr. ferri iodidi and atropiæ sulph. discontinued. Pupils moderately dilated; throat dry; complains of constant thirst; this symptom existed to a slight extent prior to the use of the atropia. Ordered subnitrate of bismuth in five-grain doses every four hours.

February 24.—Diarrhœa has ceased; has no thirst; pupils nearly normal; reads without difficulty. *Had a drenching sweat last night.* Atropia resumed in same dose.

February 28.—*States that he has had no sweating*

since last note, except a moderate perspiration on waking this morning. Pupils normal; accommodation unaffected; no unusual dryness of throat, nor thirst, for past two days.

Case IV.—Michael B., admitted to the ward February 21, 1871; æt 28. His father died of consumption at the age of forty-nine. His sickness began about five months ago with spitting of blood. There are signs of extensive deposit in the left lung, with gurgling at the left apex. Cough troublesome; considerable muco-purulent expectoration; slight clubbing of fingers. Has lost flesh greatly. During the last six weeks has had night-sweats; they are now profuse, drenching.

Treatment.—On admission, he was ordered ol. morrhuæ, and a cough mixture consisting of aromatic sulphuric acid and deodorized tincture of opium in syrup of wild cherry and elixir of cinchona; stimulus.

February 23.—To take atropia, gr. $\frac{1}{60}$, morning and evening.

February 24.—Complains of dryness of fauces; pupils not dilated; the sweating last night, after one granule, not lessened.

February 25.—His sweating was, he states, less profuse last night.

February 27.—The sweats were rather slighter during the last two nights.

February 28.—Last night the sweating was very severe. His bowels, previously constipated, are now moved twice daily; pupils moderately dilated; great dryness of throat.

Case V.—A colored man, named Greaves, who had suffered from prostrating night-sweats for months. He was relieved after taking the granules twice daily, for a short time, and for two or three nights while I had him under observation had merely moderate perspiration. In this case the atropia caused dizziness and diarrhœa. It is to be regretted that the notes have been mislaid, and I possess at this time merely a brief memorandum of this case.

Dr. Ellwood Wilson, to whom these observations were made known, has used the granules of atropia in the sweating of advanced phthisis in private practice, with very satisfactory results; the sweats being greatly controlled, although they were in no case under his observation stopped entirely. He also employed atropia successfully in the case of a lady, an opium-eater, suffering from extreme debility attended with profuse, colliquative night-sweats. The relief from this distressing symptom was speedy, and very grateful.

Quite lately, also, Sidney Ringer, in *The Practitioner* for August, 1872, has called attention to the influence of belladonna in checking certain anomalous cases of habitual sweating. He gives cases of unilateral and local sweating, and of sweating in children, which were some of them cured, some decidedly alleviated, by the external use of this drug in the form of the liniment and the ointment. He also injected $\frac{1}{100}$ gr. of atropia hypodermically in several cases, with the effect of speedily stopping the sweating. In a case of unilateral sweating of the right side of the face, this treatment caused the sweating to cease entirely in about a minute; and it did not recur during three-quarters of an hour that the patient remained under observation. A woman suffering from acute rheumatism was subjected to the hot-air bath, and subsequently to cold sponging, which caused very free sweating for several hours; $\frac{1}{100}$ gr. of atropia terminated this sweating in about a minute, but it recurred in about two hours. A man, a boy, and the resident assistant of the ward, Mr. Johnson, were then subjected to the hot-air bath, and in two cases, in about a minute—in the case of the boy, almost immediately—the subcutaneous insertion of $\frac{1}{100}$ gr. atropia caused the violent sweating thus induced to cease, and in none of these cases did it return. Mr. Johnson stated that his skin seemed so dry that "he felt as if he should never sweat again."

TRANSLATIONS.

A FEW REMARKS UPON THE RELATION OF HÆMOPTYSIS TO PULMONARY CONSUMPTION.

Translated for the *Philadelphia Medical Times* from the German of Professor Felix von Niemeyer.

BY HAMILTON OSGOOD, M.D.

(Concluded.)

EPISTAXIS is almost never attended with danger. This cannot be said of bronchial bleeding; for here it easily happens that the *whole* of the blood which is poured into the bronchia is not coughed out, but oftener that a portion of the same flows down into, or is rather inspired into, the alveoli, and there works as an inflammatory irritant. Many cases of pneumonia which thus arise terminate in delitescence; other cases end in condensation and contraction of the affected lung-tissue; in still other cases, not by any means rare, the inflamed infiltrated section of the lung and the deposit of blood which it contains pass into a cheesy metamorphosis, and thus out of the hemorrhage is developed a *phthisis florida.*

Against the correctness of this theory, Traube has objected that, at the autopsies of such of his patients as have died during the progress of an hæmoptysis, with the exception of those cases in which death during hemorrhage has been the result of suffocation, he *has never found coagula in the bronchia.* I have already mentioned that the autopsy of the young Swiss theologian, in whose case the hæmoptysis continued until his death, showed bronchia perfectly free from blood-clots. In the preceding autumn, Professor Schüppel, at my request, made the post-mortem examination of a young merchant in Reutlingen, in whose case a pneumonic infiltration of the lower lobe of the left lung became developed eight days after a severe attack of hemorrhage. The attending physician had not only repeatedly seen the patient during the course of these eight days, and convinced himself that the young man attended to his business without discomfort, but he had also, later, followed with precision the appearance, the extension, and the lingering course of the pneumonic process. When I visited the patient, in the sixth week of his illness and several days before his death, it was almost impossible to count his pulse; the skin, covered with sweat and miliaria rubra, was burning hot, the sensorium benumbed. In the entire compass of the lower lobe of the left lung the percussion-note was absolutely dull, and one heard, in the region of the dulness, loud bronchial respiration and sonorous râles. At the autopsy it was found that the whole of the left pulmonary lobe had undergone cheesy infiltration. Besides this was also found, but in the right lung, a cheesy nodule of the size of an apple, sharply bounded and of beautifully wedge-formed shape, which presented the most striking resemblance to a hemorrhagic infarctus in the

process of cheesy metamorphosis. *In the bronchia there was not the slightest trace of coagula.*

I must, therefore, through my own experience, corroborate Traube's remark, that blood-clots are only exceptionally found in the *bronchia* of individuals who die during, or a short time after, an attack of hæmoptysis. But I do not comprehend in what manner this circumstance invalidates the accuracy of my opinion touching the connection between hæmoptysis and pulmonary consumption, not to mention the refutation of the same. I have not asserted that the blood which is poured into the *bronchia*, but that which flows into—that is to say, has been inspired into—the *alveoli*, if it be not expectorated, is what acts as an inflammatory irritant, and, in numerous cases, lays the foundation of lung-phthisis. It is well known that blood is much more easily removed from the bronchia, especially from the larger tubes, by coughing, than from the alveoli. It is even not improbable that only in the larger bronchia does the presence of blood excite cough and cause expectoration. Almost all patients who have suffered from hæmoptysis declare that "a warm sensation rises up under the sternum, and then, without exertion, by a light cough, a liquid, frothy blood is expectorated."

It has been here and there firmly asserted, upon theoretical grounds, that blood from the bronchia cannot flow down into the alveoli; but, according to the affirmations of all reliable pathological anatomists, the autopsies upon individuals who have died during the progress of hæmoptysis constantly reveal localities in the lungs, of greater or less extent, in which the alveoli are filled with blood. Förster remarked, after describing the dark and clear spots in the lungs, which indicate the districts, into the alveoli of which blood had sunken, "The metamorphosis of blood which has flowed into the air-cells of the lungs, causing the spots already mentioned, has not yet been more accurately followed; the examination of the sputa, however, during the days which follow the bronchial hemorrhage, shows that the blood is gradually expectorated along with a mixture of mucus and pus." I do not consider it as at all unlikely that in hæmoptysis the capillaries of the alveoli take part in the hemorrhage; perhaps, indeed, they form the principal source of the bleeding. Many authors assert that every abundant hæmoptysis originates in the erosion or rupture of those smaller branches of the pulmonary arteries which exist in the walls of cavities. The ground which I have taken against this assertion does not deny that the source of the blood is the capillaries of the pulmonary arteries. That the conditions for the occurrence of a capillary hemorrhage in the alveoli of the lungs are particularly favorable, requires no especial mention.

Traube has also failed to refute the statement that in hæmoptysis, not at all rarely, blood finds its way into the alveoli of the lungs and there remains. I must, therefore, hold fast to the opinion that certain cases of pulmonary consumption originate in this way, and that the blood which remains in the alveoli, as well as the products of the pneumonic process which is called forth by the same, undergoes cheesy metamorphosis.

The accuracy of the generally received statement that in the beginning of an hæmoptysis, with extremely rare exceptions (to which precisely the case reported by Traube belongs), neither appearances of fever, nor pain, nor other signs of inflammatory disease of the lungs exist, has not been denied by Traube. He believes that a slight increase of the body-temperature is frequently overlooked, but he admits (what I have repeatedly confirmed through exact measurements of the temperature of the body) that cases also occur in which, at first, every sign of fever fails.

But, far from inferring from this fact that, as a rule, the hemorrhage is the primary and the pneumonic process the secondary lesion,—a conclusion to which all medical authorities must be led, if only they can, without constraint or prejudice, follow the origin and course of phthisis,—Traube gives it another meaning: "Since bleeding belongs to the most effective anti-febrile remedies, there is no importance to be placed upon the slowness of the pulse in the beginning of many cases of hæmoptysis. Under the influence of the hemorrhage, the temperature can by no means exceed the normal limits, except in a trifling degree, and the pulse-frequency not at all. The case which, in truth, at first is feverless, may be thus made clear: In the beginning, the inflammation is confined to a few circumscribed localities, and acts as a febrile irritant only when it has extended itself over greater spaces."

To the judgment of my colleagues I leave the question as to whether they believe that this view or my own approaches the truth most nearly, and will restrict myself to a few points, which, in respect to the correctness of my view, seem to me of considerable weight.

First, I turn back once more to the familiar fact that in the case of many persons the onset of hæmoptysis is preceded by repeated attacks of epistaxis. Nobody thinks of attributing this epistaxis to a tubercular condition, nor to a peculiar form of inflammation of the nasal mucous membrane. If now, in one and the same person, this simple capillary hemorrhage of a mucous membrane, very rich in blood-vessels, is followed by a capillary hemorrhage of another likewise very vascular mucous membrane, and if in both cases, in addition to the symptoms of the bleeding, no other morbid indications are to be discovered, I dare to assert that no special significance is to be inferred from one hemorrhage more than from the other.

I would further call to mind the certainly indisputable fact, that it is not by any means rare for an abundant hæmoptysis, which continues for days in succession, giving rise to great solicitude on the part of both physician and patient, to finally cease without leaving behind it a single other trace than an exhaustion, which soon disappears. Since I have learned Traube's views only from the report of his assistant, I do not know whether, in such a course of hæmoptysis, he infers *its* rise also from a tubercular pneumonia which remains either latent or becomes retrogressive. For myself, there exists no doubt that in those cases in which individuals, after single or repeated attacks of hemorrhage, remain free from phthisis, and reach a great old age, it is to be understood that following the attacks of hæmoptysis no blood remains in the alveoli, but that, in the manner which Förster describes, it has been expectorated. The accuracy of this explanation is especially supported by those cases in which a first and second attack of hæmoptysis pass harmlessly by, while a later one, which differs in no wise from the preceding, is at once followed by the signs of a commencing phthisis of the lungs. Since I emancipated myself from the prejudicial effect of the doctrines of Laennec, exact observations as to the appearance or non-appearance of fever and symptoms of pneumonia, in the days next following the beginning of an hæmoptysis, have won, for myself and my pupils, the greatest prognostic value.

Finally, the known fact that pulmonary consumption frequently follows traumatic hemorrhage of the lungs, appears to me to be another support of my opinion. In the days when, in the various universities, duels with thrusting weapons were customary, even the laity knew that a so-called "lung-thrust" was less dangerous in its temporary effect than in the evil consequences which followed after a lapse of time, more or less long. By many writers (Piorry), the frequency with which penetrating chest-wounds, leading to hæmoptysis, are followed by phthisis has been overstated; but some truth lies beneath the statements. To my regret, I have not succeeded in obtaining possession of

a single one of the dissertations which appeared several years ago, in which, as I am told, attention was called to the danger to which operations in the throat give rise; which danger consists in the downward flow of blood into the lungs and in the retention of the same in the alveoli. I am, indeed, convinced that without these observations, the ancient doctrine, according to which certain cases of pulmonary consumption are called forth by an hæmoptysis, would have broken a new path, or, more strictly speaking, after a comparatively short intermission, during which it would have been doubted upon theoretical grounds, this doctrine would have found a new and universal recognition. But it has not escaped my notice that this universal recognition has been deferred and rendered difficult by the opinions which Traube has raised against the part of my clinical lectures now in question.

The correct belief that a neglected catarrh is attended with a secretion rich in cells, through which secretion the lesion extends itself into the alveoli, and that the product of the catarrhal pneumonia thus arising degenerates into a cheesy metamorphosis, has already found such a widespread acceptation, and has struck its roots so deeply, that it begins to exercise upon the careful treatment of catarrh and upon the prophylaxis of phthisis a most happy influence. In like manner, the majority of physicians now already share the opinion that every form of pneumonia, when the inflammatory infiltration does not of itself disappear, but runs into cheesy metamorphosis, can lead to consumption; which view stands in direct opposition to the doctrines of Laennec. Properly speaking, only *one* of the propositions already quoted from the theory of Laennec—viz., that consumption of the lungs can never develop itself from a bronchial hemorrhage—is, in distant circles, still accepted. This opinion, however, stands upon as weak a footing as the two remaining assertions,—that pulmonary consumption never follows a neglected catarrh, and that it can never originate in an acute or chronic pneumonia.

In spite of what I believe to be my perfect refutation of these opinions, I still miss a decided and general assent to my satisfactorily grounded assertion, that among the pneumonic processes which, through the cheesy metamorphosis of the products of inflammation, lead to consumption, those processes which arise from the retention of blood in the alveoli, after an hæmoptysis, have also a rôle to play. The lack of, or at least the lukewarm, assent to my opinion does not surprise me, because the objections against the correctness of the same originate with a man whose undisputed authority in the pathology and therapeutics of the organs of respiration must carry with them a great weight.

The respect which I entertain for Traube's scientific accomplishments has caused me to defer the refutation of his objections until I had, through continued observation of new cases of disease, exposed the same to the most searching proof.

Finally, in order to protect myself from misconception, I once more briefly define my views concerning the relation of capillary bronchial and pulmonary hemorrhage to consumption of the lungs, in the following propositions:

1. By no means all individuals who suffer from capillary bronchial and pulmonary hemorrhage are, or become, consumptive.

2. Not unfrequently, consumption of the lungs follows capillary hemorrhage of the lungs and bronchia, without the existence of a genetic connection between the hemorrhage and the pneumonic processes which, as a rule, form the origin of the phthisis. The same individuals who are predisposed to these hemorrhages are also disposed to the inflammatory processes just mentioned.

3. Capillary bronchial and pulmonary hemorrhages frequently lay the foundation of phthisis in persons in whose lungs neither tubercle nor pneumonic products exist; and the reason for this is, that the blood which is retained in the alveoli of the lungs, and the inflammatory products which are called forth by the same, undergo cheesy metamorphosis.

4. In the same manner, bronchial and pulmonary hemorrhages not rarely hasten the course of an already existing phthisis.

5. In individual and rare cases, hæmoptysis is not the cause, but the *consequence*, of pneumonic processes, which in their protracted course lead to pulmonary consumption. Such cases are easy of recognition, because commonly severe fever and other indications of inflammation accompany or precede the hæmoptysis.

6. The blood which remains in the alveoli, and which, together with the pneumonic infiltration, has become cheesy, sometimes causes an eruption of miliary tubercle.

[The above monograph was written by Niemeyer about fifteen months previous to his death.—TRANS.]

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

CLINIC OF PROFESSOR S. D. GROSS, M.D.

Reported by FRANK WOODBURY.

TUMOR IN MAMMARY GLAND.

AN apparently healthy, married lady of fifty-three years, appeared at this clinic on the 14th of last month, on account of a painful tumor of the right breast, which she had first noticed only two months before, since which time it had increased considerably in size, and occasioned her much anxiety. She could not bear the pressure of a tight dress upon it, as this increased the pain.

The lecturer proceeded to examine the patient. We find a circumscribed, movable tumor, rather deep-seated, and external to the nipple. It is nodulated, but not uniformly hard; in places it appears softer, as if it contained small cysts with fluid contents. Although appearing of considerable bulk, yet when the surrounding adipose and cellular tissue are dissected off, it will be of rather small size. The breast is freely movable; soft, except in the affected spot, and the nipple is natural and not retracted; the skin being healthy and not adherent or attached to the tumor. The pain is sharp and neuralgic in character, and the patient thinks it is worse in wet weather. This tumor strongly resembles a gland undergoing fibroid degeneration, but I cannot state more positively in regard to it, until I can make a section of it before you, on a plate. There are no enlarged glands in the neighborhood of the tumor, or in the axilla.

This is not cancer. You might expect to find a scirrhus of the breast in a woman of this age, as it generally comes on soon after the decline of the menses. In scirrhus the tumor adheres to the surrounding structures, so that by the time it attains this size it is not freely movable, as this one is. The skin also would be discolored and brawn-like, and the nipple retracted early in the disease, forming a prominent diagnostic symptom. The glands of the axilla in scirrhous disease become involved, and the morbid structure soon breaks down and forms one or more irregular, foul-looking ulcers, with hard depressed edges, discharging a sanious, offensive, acrid fluid. The affection before us does not resemble encephaloid disease, which is comparatively rare in the mammary gland; nor is it like epithelioma, colloid, or melanosis, which also are extremely

uncommon in this situation. Adenoma and fibroma frequently occur here, but are mostly met with in young girls shortly after puberty, in whom generally co-exist, and may be connected with, dysmenorrhœal troubles and a nervous temperament. It also occurs, occasionally, soon after marriage and during the first pregnancy. We might use in its treatment the cicuta plaster or the opium plaster, as palliatives; or sorbefacient applications; but the only effectual remedy is the knife.

Chloroform was administered and the tumor removed; part of it was hard, dense and resisting to the knife, white in color, and resembled a degenerated lymphatic gland. Throughout the greater part of its bulk it contained a number of cysts of varying sizes, in which was a dark-colored, jelly-like fluid.

September 21, the patient was again presented. A slight erysipelas had supervened upon the operation, but had yielded promptly to remedies. This erysipelas may have been produced by a number of causes, which we will not recount, as it could at best be nothing but conjecture. A tendency to erysipelas seems to exist in some persons, particularly those of a nervous, irritable temperament: it is also seen in intemperates. This affection prevails more at some seasons of the year than others, and is sometimes endemic in certain localities. Some peculiarity of the atmosphere, which sometimes exists in hospitals, seems to exert a powerful effect, both in predisposing patients to the disease and producing an attack. Simple erysipelas exhibits itself as a bright red discoloration of the skin, which has a marked tendency to spread. In its treatment we may use equal parts of tincture of iodine and alcohol, which may be painted on with a brush twice or thrice daily; or a cloth may be kept on the part wet with a solution of muriate of ammonia, acetate of lead, and opium, or even cold water. In the phlegmonous variety, and in that form supervening upon a wound or ulcer, which involve structure beneath the epidermis, the treatment by vesication is particularly beneficial.

The tumor was carefully examined by Dr. R. M. Bertolet, who made the following report:

"The mammary tumor, which is made up of a number of small cysts filled with a dark, straw-colored, gelatinous fluid, is a *cysto-sarcoma mucosum*. The microscopical appearances are briefly as follows:

"The dilated lacteal ducts and the attenuated and distorted glandular acini form the round cystic spaces. These are filled with a fluid of a semi-solid consistence resembling the jelly of Wharton, and composed of a meshwork of anastomosing stellate cells, with a hyaline intercellular substance which is rendered cloudy upon the addition of acetic acid. The remains of the original lining of cylinder epithelium are, now and then, seen upon the walls of the cysts. From the walls of the glands are seen springing many papilla-like proliferations, also generally deprived of their epithelial covering.

"Throughout the growth are imbedded numerous sarcomatous cells of the small-celled variety."

We can assure this patient that the disease, in all probability, will not return; as circumscribed sarcoma (including the fibroid and cystic varieties) is the least malignant of all its forms.

STRUMOUS HYPERTROPHY OF THE LIP.

This case, a boy ten years old, exhibited a peculiar development of the upper lip, which was thickened and pendulous. This condition had existed for three years; otherwise he enjoyed good health.

This is a curious affection, but it is one that is occasionally met with in young persons with the strumous diathesis. It occurs almost exclusively in the upper lip and in the young of both sexes. In these cases the lip has twice its natural thickness, is hard and rigid, and sometimes shows a tendency to ulcerate. The affection is frequently accompanied by strumous manifestations in other portions of the system, such as enlarged tonsils and psorophthalmia. The firmness and induration of the lip, the absence of co-existing disease in the gums and teeth, and the chronic nature of the enlargement, together with the scrofulous appearance and condition of the patient, will generally make the diagnosis sufficiently clear. No operation is needed for its relief. Attention to the secretions, with some alterative medicine, or a mild course of mercury when other means fail, will generally be all the treatment required.

The patient has a broad nose, and his face has a heavy expression, as if his mental operations were slow. He states that there is no disease in the family, of which he is aware, and his parents are healthy people. His tongue is a little coated, but not more so than the American tongue generally is, because everybody eats too much in this country. We find no enlarged glands along the sterno-cleido-mastoid or under the angle of the jaw, which so frequently exist in scrofulous subjects. If they were here, however, we should not bring that fact forward as conclusive proof that this, or any disease here, was scrofulous, as they might be enlarged independent of any disease. But from other sources we derive the evidence that this is an enlargement of the lip of strumous origin. We may distinguish two kinds of scrofulous subjects. The first variety are blondes, with blue eyes, and a light florid complexion, with a vigorous circulation and a bright precocious mind. In these the disease manifests itself in the bones, joints, skin, and lymphatic glands, and they are not so liable to suffer from consumption as the second class, who are generally dark, with a pale and unhealthy complexion, tumid lip, and drooping eyelashes; they are dull and languishing, and show no activity of brain or muscle. When I was in Louisville I attended a young lady of nineteen years, who was a blonde with very light hair. Though in other respects healthy, her upper lip was immensely enlarged and indurated to the touch, more so than in the present case. In the case referred to, I derived great benefit from the officinal solution of baryta. This is a powerful detergent and alterative, and is especially adapted to strumous cases where there is a deficiency of blood and the face and lips are pallid; this is not exactly the case here, but it will make a decided improvement in the boy's appearance, in a short time.

℞ Liquor. barytæ, gtt. iv,
Tinct. ferri chlorid., gtt. x. M.

S. To be taken in a tablespoonful of water, morning, after dinner, and at bedtime.

We will make no change in his diet; he may take his accustomed food, taking care, however, that he has outdoor exercise, and that his bowels are kept in a soluble condition. We will see him from time to time, and note his progress.

EPITHELIAL DISEASE GRAFTED ON A CONGENITAL WART.

This man, a blacksmith by trade, was forty-eight years of age, and came from Frenchtown, N. J.

The patient states that from his birth he has had a wart or mole in the right groin, immediately above the centre of Poupart's ligament. This remained in a stationary condition until one year ago, when, during a fit of sickness, he thinks he accidentally scratched its top off, with his finger-nails. Since that time it has gradually enlarged, and finally ulcerated, producing an offensive discharge. The tumor is now as large as a pigeon's egg, projects from the groin, and has a smaller, similar tumor on each side of it. He says that his general health is good.

This is a wart, which has taken on epithelial disease.

The accident he mentions may have induced it, but probably had but little connection, if any, with the origin or development of the morbid action. The tumor is covered with cacoplastic lymph, it is tuberculated, and distantly resembles a large mulberry. It is hard and incompressible, and discharges a scanty, fetid pus, slightly bloody, probably due to the friction of the patient's clothes upon the tumor. The lymphatic glands of the groin are enlarged and indurated from the anterior superior spine of the ilium to the pubic bone, and in all probability this condition of the glands likewise extends into the interior of the pelvis and abdomen. This fact very much complicates the case, and it is doubtful if the most careful and skilful surgeon could operate so as to remove the tumor and all the enlarged glands. In fact, this would involve such a serious operation that I refuse to operate, because it would fail in its result unless all the diseased glands were removed; and even after they were, the disease, being malignant, would be almost certain to return either in the cicatrix or elsewhere in the body, and so perhaps hasten the fatal result. This case is interesting, as it shows how a wart may remain dormant for nearly half a century, and finally take on malignant action; it might have been encephaloid or scirrhus, just as well as epithelioma.

We will direct the patient to wash the part frequently with a dilute solution of permanganate of potassa, which is a powerful deodorizer. It is not worth while to give any remedies internally. In spite of the praises of some practitioners in favor of arsenic, who consider it as having almost a specific virtue in this disease, I have not only utterly failed to find it of any special value in treating this affection, but in my experience I have not seen it produce the slightest effect upon the disease, beyond improving the general health, as a tonic.

Until we have more light than we now possess on the nature and treatment of these carcinomatous diseases, our only reliance will be upon prompt and complete extirpation of the diseased structures.

PHILADELPHIA (BLOCKLEY) HOSPITAL.

SURGICAL CLINIC OF F. F. MAURY, M D.

Reported by FRANK WOODBURY.

ON Wednesday, September 4, a large number of students were present to commence the regular winter course of clinics at this institution. The first case introduced was one of

EPITHELIAL CANCER OF THE LIP.

This existed in a man, about 45 years of age, who had been admitted to the hospital a few days previously on account of a small dense tumor, irregular in outline, which protruded from his upper lip. Oval in shape, its base measured about one inch in its perpendicular, and three-quarters of an inch in its horizontal diameter. It projected about half an inch above the surface of the lip, on a line with the sesamoid cartilage of the nose and three-quarters of an inch from it. Extending along its lower edge there was a crack or fissure, filled with a dark-colored exudation. The patient stated that this began two years before, as a common wart. This was picked and irritated until it became sore, and finally ulcerated. Finding that it showed no disposition to heal, he went to a "cancer-doctor," who gave him a plaster to use, which made it painful, and it rapidly assumed the appearance now exhibited.

The lecturer said that, in connection with the subject of cutaneous affections, he brought this man before the class to show a curious lesion as well as to illustrate a peculiar pathological condition. On looking at the affection, you would at once pronounce this a disease of the epidermis, the outer layer of the skin, and due to a morbid action going on in the rete mucosum. This tumor consists of nothing but epithelial scales, such as rub off from any part of the body; but here there is inordinate generation of them, due to the disease, combined with a morbid secretion which glues them together. This is the composition and mode of formation of those horny tumors, which sometimes grow from a man's forehead and other situations, which are described in surgical works. But they rarely assume such large proportions; more frequently they are accidentally knocked off, or perhaps scraped off during sleep, leaving an open sore. This ulcer exists and is maintained by the epithelial degeneration.

The cause of this disease is uncertain. There seems, in some cases, ground for the belief that it may be hereditary. Dermatologists state that a tendency to epithelial disease exists in some persons, whether from effects of drinking or other causes, whose faces show the marked evidence of seborrhœa; this is followed by closure of the ducts of some of the sebaceous glands, whose accumulated secretion protrudes the skin in a multitude of points. Any of these may be irritated by picking, and a sore result, which may take on this peculiar morbid action.

This is not a syphilitic affection; it does not look like one. The patient has never had the disease, and if he had, this bears no resemblance whatever to the manifestations of syphilis.

This is known as cancroid, epithelioma, or epithelial cancer. It is called cancroid (cancer-like) because it resembles cancer in its general characters, except in the repullulating tendency or liability to return. Scirrhus, encephaloid, and a few other tumors, are almost certain to return after removal, from which they derive their title of malignant diseases.

The treatment of this is perfectly simple, and, if properly conducted, generally successful. The indication for treatment is to restore the natural healthy action of the part. The plaster this man had applied was probably highly irritating, and aggravated the morbid condition. Now, this is just what must be avoided. This disease already is caused and kept up by irritation, which must be reduced to invite healthy action. Never apply a local irritant that can only increase the trouble.

First, carefully remove the excrescence, which is really a large scab, and an ulcer is discovered underneath. Having shaved the hair from the vicinity, a piece of lint is wrapped around a stick of caustic potassa (as by this means it is held better than in the forceps), which is then carefully applied around the edges of the sore and thoroughly over its surface. Dilute acetic acid is then well applied, so as to neutralize the excess of alkali and prevent the extension of its caustic action. By this means an eschar is established and a healthy granulating sore substituted. After this, a poultice is to be applied for twenty-four hours. Then an appropriate dressing would be:

℞ Ung. hydrargyri nitrat., gr. xx;
Rhei pulv., gr. x;
Adipis benzoat., ʒiv.
M.

Apply several times daily, on a piece of patent lint.

No internal treatment is needed; in a short time he will doubtless be much improved.

CASE OF URETHRAL STRICTURE.

This man, 56 years of age, complained of difficulty in micturition. Sixteen years before, he had an attack of gonorrhœa, twelve years subsequent to which he had another attack. About fourteen months after his second attack he first noticed a trouble in urinating.

On attempting to introduce a sound, Dr. Maury found that a bridle stricture existed at the meatus, which so constricted the orifice as to only admit a probe. A tenotome was carefully inserted and the stricture divided, after which a small sound passed readily into the bladder.

The lecturer remarked that the mere fact of the passage of a small instrument into the bladder was not satisfactory evidence that no stricture existed. There might be a submucous constriction in progress, which would not be discoverable by a small sound, but which would afterwards develop. After successfully passing two larger sounds, the patient was told that, after rest in bed for a few days, he might go home relieved of the difficulty that had troubled him for so many years.

CONDYLOMATA.

This patient, about 40 years old, exhibited in the region of the perineum and anus, a number of flat broad excrescences, which secreted a serous fluid of a peculiarly fetid odor. At the other end of the alimentary canal a somewhat similar state of affairs existed. He showed a number of mucous patches on his lips and inside his mouth. He asserts, positively, that he never had syphilis, chancre, sore on the penis, or bubo, and said he was certain of it, because if he had he would have come immediately to the hospital. He acknowledged kissing loose women.

The lecturer considered that this was sufficient explanation; that osculation, where one of the parties had a mucous patch on the lip, was sufficient to inoculate the other. He was not certain that the saliva mingled with the highly contagious secretion from a mucous patch, was not able to convey the disease quite as readily as the matter from a chancre. This affection is a manifestation of constitutional syphilis. It is known as plaque muqueuse, syphilitic wart, or true condylome. There are several kinds of condylomata described by the writers, but this one is the genuine contaminating condylome, an outgrowth of syphilis, and comes on at a regular period from the onset of the disease.

As this is the manifestation of a constitutional disease, you must depend largely on internal remedies. For a local application several articles are recommended. A very good one is composed of equal parts of powdered alum and savine; this dries them up in a few days. Ricord uses calomel and arrowroot, which is quite as good. The application I am in the habit of using is chromic acid, full strength, which is nearly painless, and is, perhaps, more effectual than the others. This is applied with a pine stick, which is sharpened to an edge so as to introduce the acid into the sulci between the excrescences, being careful to protect the adjacent parts. This application may be repeated in a few days. To-night a poultice may be applied. The parts can be dusted several times a day with,—

℞ Hydrarg. chlorid. mitis;
Bismuth. subnitrat., aa, q. s. M.

The sores in the mouth will be touched with the solid nitrate of silver. He is taking the usual constitutional treatment.

Post-Partum Exploits.—At a recent meeting of the Obstetrical Society of Edinburgh, Dr. Keiller observed that he had recently witnessed several instances of extraordinary exploits on the part of women immediately after their confinement, without subsequent suffering. As showing what some women can do without any bad consequences, he stated that the other day a woman was delivered in the Old Assembly Close, no one being with her at the time. After the placenta came away, she put her room in order, and then, placing the child and the placenta in a basket, she walked coolly to the Maternity Hospital, within an hour after her confinement, to see if everything was right with her. Dr. Keiller exhibited the fœtus, which was apparently about the seventh month.

In connection with this case, Dr. Woodman, of Exeter, in the *British Medical Journal* of August 31, says:

"A young woman, a small farmer's daughter, came into Exeter by one of the branch lines, to see some friends off to London, and also, I suspect, to make arrangements for her confinement, unknown to her parents. Just as her friends were leaving, she felt rather poorly, and went upon Northernhay, and thence to the Castle Yard, where she was confined between ten and eleven A.M., on a seat in a retired part. No one was near, and she appears to have been unconscious for about an hour; when she recovered, she tied the umbilical cord with a piece of tape she had in her pocket, and leaving it behind, took off her jacket, wrapped the child in that, and started off to try to get lodgings. Not having brought much money with her, she was unsuccessful; and, although she managed to get some food, no one would take her in; she therefore, about nine P.M., went to the Guildhall, and the police at once sent her in a cab to the workhouse, where she arrived a little before ten P.M., and was at once placed in the Lying-in Ward and properly attended to.

"Although this woman had walked about, for nine or ten hours, without any attention to herself or child, no bad consequences ensued except bad colds to both."

Dugong Oil.—Attention (*Brit. Med. Journal*) has been recalled, by the contents of the Queensland Annexe at the International Exhibition, to the medical uses of dugong oil. It has been declared by more than one medical practitioner, following Dr. Holt, of Brisbane, to possess all the nutritive properties of cod-liver oil, and to be equally useful in all the forms of tuberculous and wasting diseases which are benefited by the administration of cod-oil; it is alleged to possess an actually agreeable flavor, to be pleasant as an article of food, and to be acceptable to those whose stomachs reject cod-oil. At a recent dinner in the Annexe, the pastry was made with dugong-oil, and was pronounced to be excellent.

Six Children at One Birth.—The first authentic case we (*Nashville Journal*) have ever heard of was reported last April, at the annual meeting of the Georgia State Medical Association, if we except the one recorded in the "Remarkable Cases in Surgery," 1857; but they all died in the evening of the day of their birth. Dr. George N. Holmes reported that, twenty-eight years ago, in Kentucky, he delivered a poor white woman of six babes at one birth. The children were perfectly formed, and weighed each two and a half to three and a half pounds. The parents were originally from Maryland. They afterwards moved to Arkansas, and he had heard that two of the children had died.

Glycogen.—M. Claude Bernard announces that he has recommenced his studies on the evolution of glycogen in the eggs of birds. He recalls to mind that in 1848 he discovered sugar (*glycose*) in the liver of animals; that in 1855 and 1857 he proved that this sugar is derived from a particular source—glycogen—fixed in the hepatic tissue. Finally, in 1859, he again found this glycogen in the placental organs of mammals and in the vitelline membrane of birds. It is at this point that he recommences the research.

Extraordinary Fecundity.—Dr. Edward Mason reported, at a late meeting of the Elmore Medical and Surgical Society, Wetumpka, Ala., a case in which "a lady bore seventeen children in nineteen years, twice giving birth to twins, and once producing four children at a birth. The latter died, but all the other thirteen survived."

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EDITORIAL.

THE ANNUAL REPORT OF THE BOARD OF HEALTH FOR 1871.

WE open the Report of the Board of Health of the City and Port of Philadelphia for the year 1871 with special interest, inasmuch as it treats of a period during which the fearful epidemic of smallpox, the last remnants of which have only just disappeared, took its rise and reached its height.

The report contains forty-nine pages, and to it are added, in the form of an appendix, the reports of the Lazaretto Physician, the physician in charge of the Municipal Hospital, and the Health Officer, making in all one hundred and thirty pages.

The first part, or report proper, contains a very clear and condensed account of the spread of smallpox in our midst, and of the energetic measures adopted by the board to check its progress. There are also, on page 16, some excellent suggestions in reference to the passage of a Sanitary Act similar to that of England, to prevent the use, without previous disinfection, of public conveyances, clothes, bedding, or rooms, which have been used by persons suffering from infectious disease.

There are also recommendations in reference to giving up the use of the impure Delaware water; to the abandonment of surface-drainage; to sewer-ventilation, and to the collection of kitchen garbage; which recommendations it is very much to be regretted that the board has not power or influence enough to cause to be carried into effect.

At page 5 there is an interesting chart exhibiting the course of mortality of the chief fatal diseases of Philadelphia for 1871, and on page 3 a table of the principal causes of death for the year, in which, however, are omitted the deaths from disease of the heart, 547 in number.

In reference to vaccination, every effort seems to have been made to induce all to submit to it, but the absence of a compulsory law rendered it impossible to have vaccination carried out as generally as would be advisable.

In order to get at evidence as to the protection afforded by vaccination or revaccination, the report of Dr. Welch, in charge of the Municipal Hospital, must be referred to. He gives us the statistics of 1227 variolous subjects, among all of which there was only one case of serious disease occurring after revaccination, and in this case Dr. Welch "cannot help entertaining a doubt of the genuineness of the vaccine disease" (see p. 75). One or two of the vaccine physicians also testify to the value of vaccination.

In the printed blanks furnished to all physicians, on which they are by law required to report every case of smallpox as it occurs in their practice, there is a space to be filled up in reference to the previous vaccination of the patient and the character of the mark. This, however, does not appear to have been made use of for purposes of classification; and in reference to the *deaths* from the disease, all such classification would be impossible, for no report as to the vaccination of the patient is required to be made, as it should be, on the blanks issued for reports of deaths.

There are in all, connected with the report, seventeen tables, exhibiting in condensed form most of the important facts in reference to the births, marriages, and deaths in 1871.

The most extended of these tables is No. 6, on page 96, giving the total of interments in the city, and an alphabetical list of the diseases which proved fatal. To this are appended remarks occupying six pages more; which remarks, however, are almost valueless, as they are very little more than a repetition in the same order of the more important points of the table.

If, instead of this, some attempt at classification had been made, so as to give an approximative idea of the total deaths from diseases of the circulatory, respiratory, and digestive symptoms, etc., respectively, the value of the table would have been doubled; for as it is, if an attempt is made, for example, to ascertain the deaths from disease of the heart, we must look under letter A, for aneurism of the heart; C, for congestion; D, for disease and dropsy; E, for enlargement of and effusion on the heart; F, for fatty degeneration; H, for heart-clot, and I, for inflammation of the heart.

Similar useless repetition in the form of remarks is connected with the tables of births and marriages.

A very interesting table on page 125 exhibits the gradual increase of smallpox as shown by the daily return of cases. It goes, however, unnecessarily into particulars. A weekly table would have been just as valuable for the purposes of science, even al-

though it did not show us that the physicians of Philadelphia when they visit a case for the first time on Sunday very often do not report it until Monday. According to the table, very few cases originated on the first day of the week.

The column in this table of totals of cases reported on the first days of all the months throughout the year, as compared with those reported on the second and subsequent days, is valueless. Not even superstition has ever connected an influence with one day of a calendar month as compared with another.

There are very few errata in the report. On page 16, however, we read of patients *which* had smallpox; and on pages 58 and 61 we read about the seventh, eighth, and tenth days of the *rash* of variola.

The report passes in dignified silence over the attacks which have recently been made on the Board of Health. It is not remarkable that, when misfortunes occur, ignorant men should accuse and suspect first of all those who have tried to aid them. In some Eastern countries it is dangerous to help a sick or wounded man found by the roadside, for if he should die, the man last found near him is held responsible. In famines, too, the baker and flour-merchant, without whom every one in a city would be obliged to go himself far into the country for food, are too often the first victims of a stupid populace. What physician, again, has never been held responsible simply because his efforts have been unsuccessful?

So here, unpaid, and hampered by the insufficiency of appropriations, the Board of Health of Philadelphia has been abused by the ignorant, and by those who live by humoring the ignorant of both parties, and by those of no party at all; and, worst of all, the credit for any measures which it may be impossible to find fault with has been taken from them, and claimed as due to the advice of so-called organs of public opinion. But, in spite of all this, the members of the board, with the calm and self-sacrificing spirit of a good conscience, have persevered, and, having done their duty, can look elsewhere for their reward than to the selfish clamor of a popular press.

New Hospital Building.—On the 9th inst., the corner-stone of the new building of the Jewish Hospital Association of Philadelphia was laid, on a lot of ground situated on the Olney Road, near the York Pike. The ceremonies were conducted under the auspices of the Grand Lodge of Free-Masons of Pennsylvania. A Home for the Aged and Infirm will be connected with the institution, in the same building.

ETHER AND CHLOROFORM.

THE constantly recurring accounts of deaths from chloroform seem to have no terror for its advocates, who doubtless honestly believe these accidents to be due to carelessness in administration, or to impurities in the agent itself. Two cases, indeed, have recently been reported, in which the inhalation of sulphuric ether was accused of fatal results. But even if these were correctly construed, which we doubt, can they weigh at all against the hundreds and hundreds in which the lethal effects of chloroform were beyond question? And has this latter any real advantages to offset its fearful risks? Its advocates say that it is easier of administration, more agreeable to the patient, and less apt to induce nausea, than ether; and in certain operations, its non-inflammability is a strong point in its favor. And yet our own experience leads us to doubt whether the safer agent is not in most cases quite as available. Dr. Jeffries, of Boston, we are told, amazed the ophthalmic surgeons in London, at the recent Congress, by showing how easily and how perfectly ether answered the purpose of producing anæsthesia for operations on the eye. We should be glad to receive communications on this most important subject, and on that of anæsthetics generally.

WHAT IS ECLECTICISM?

THIS question seems to trouble the eclectics themselves somewhat; but the Iowa State Eclectic Medical Association tried to settle it by the following resolutions, which "were *unanimously* adopted:

"*Whereas*, The term Eclecticism has been variously construed by different parties, and, whereas, the clear enunciation of our principles from time to time will enable the medical fraternity, and the people, to better understand our system of practice; therefore,

"*Resolved*, As the sense of this convention, that the *total rejection of venesection, arsenic, and antimony, and all their compounds and preparations, as well as lead and copper and all their compounds and preparations*, except as topical applications, are now and ever have been radical and cardinal features of our system of practice.

"*Resolved*, That we doubt the propriety of introducing into the diseased human body, metals which compose no part of it in health, and which are slowly and imperfectly eliminated, and insist on the superiority of organic remedies and those metals found in the normal human body."

If this is all of eclecticism, and if we know anything about the usual practice and prescriptions of regular physicians, the establishment of a special

sect on this basis was hardly necessary. Notwithstanding the constant assertions of quacks of all stripes that their patients have been "bled, leeched, blistered, and purged" by gentlemen whom they are pleased to call "allopaths," venesection is resorted to with extreme rarity at the present day. Except in cases of malignant or semi-malignant disease, and sometimes in obstinate malarial poisoning, we believe arsenic is very seldom employed; while it has proved quite as fatal when used topically as when given by the mouth. Antimony is, in the cities at least, prescribed to a very trifling extent, and copper not at all, for internal use, so far as our knowledge goes. Lead, in very small doses, cautiously administered, is occasionally used in the treatment of dysentery.

We cannot but believe that some of these denouncers of remedies so rarely employed by the regular profession are a little like the Thompsonian who ordered some camphor removed from a sick-room, saying, "None of your *minerals* for me!"

REVIEWS AND BOOK NOTICES.

HAND-BOOK OF SKIN-DISEASES. By Dr. ISIDOR NEUMANN. Translated from the second German edition, with Notes, by LUCIUS D. BULKLEY, A.M., M.D. New York, Appleton & Co., 1872.

It affords us pleasure to comment upon this volume as it now appears,—Americanized. Familiar with the original, we have anxiously awaited the completion of Dr. Bulkley's task, and welcome his translation as a valuable acquisition to our library. Our author was formerly one of Prof. Hebra's assistants in the department for skin-diseases at the Vienna General Hospital, where he at present holds the position of lecturer on these diseases. Throughout Europe, Dr. Neumann has long been recognized as a zealous investigator in dermatology, as well as a ready and easy teacher upon diseases of the skin. With such recommendations we have a right to expect a work of merit.

The basis of the volume is composed of the views of Hebra, which fact is graciously stated in the preface to the first German edition. In Neumann we have a fair exponent of Hebra and his principles, and it is this circumstance which renders the book especially valuable.

Dr. Neumann in his introduction says, "Since the year 1840, Hebra has been making known the principles of the Vienna school, both by writings in the various journals of this and other lands, and by means of his observations and experiences. He who is but superficially acquainted with the 'Handbuch der speciellen Pathologie und Therapie der Hautkrankheiten,' will surely appreciate the simplified nomenclature and clear logic of Hebra, his gift of observation, his precise indications for the employment of remedies, which were in part already in use, and in part were first introduced by himself."

The book before us is a hand-book, and not an exhaustive treatise upon the subject. Commencing with a short history of the early literature, our author devotes a concise and valuable chapter to the microscopical anatomy of the skin. This is a subject rarely comprehended by the student, and will be found particularly satisfactory and lucid. Classification next receives a few pages, and the various systems which from time to time have been devised are briefly enumerated. The system of Hebra—pathologico-anatomical—is given *in extenso*, and it is this classification that our author has taken as a basis and attempted to improve upon. Neumann's system is that of Hebra condensed and simplified. The various anomalies and diseases are discussed in order, being clinically described in a clear and graphic manner. Throughout, the treatment is concisely yet definitely given.

The work is written in a terse, abbreviated style, without superfluity of phraseology, each sentence meaning exactly what the words denote.

Upon certain diseases involved in obscurity, the translator has added appropriate notes, in many cases making the chapters more complete. It has been Dr. Bulkley's good fortune to present to the profession a work which cannot fail to give a wide-spread knowledge of these diseases, and as a manual both for the student and physician we recommend it above all other works of the kind. Scattered throughout the pages are numerous wood-cuts of microscopical sections, which are in every respect equal to the original. The general style of the book is unsurpassable, and the whole presents an inviting appearance which must irresistibly attract attention.

SMALLPOX: THE PREDISPOSING CONDITIONS AND THEIR PREVENTIVES, WITH A SCIENTIFIC EXPOSITION OF VACCINATION. By DR. CARL BOTH. Second edition. Small 8vo, pp. 82. Boston, Alexander Moore, 1872.

The gist of this book is "that smallpox consists in the escape of *superfluous* albuminous substances into the tissues of the periphery of the nervous centres of the body, caused, in the first place, by the want of salt," and "that the *proper* use of salt, in the human economy, will eradicate smallpox at once and forever" (pp. 49, 50). In other words, more salt, and no vaccination. From Serapion and Rhazes down to Aitken, medical writers have wasted time, pens, ink, and paper in trying to get at what Dr. Both's giant mind compresses into one sentence. As to Jenner, the less said about him the better, after this.

BOOKS AND PAMPHLETS RECEIVED.

Evolution of Life. By Henry C. Chapman, M.D. With numerous Lithographic Plates. 8vo. Philadelphia, J. B. Lippincott & Co., 1873.

Ovarian Tumors: their Pathology, Diagnosis, and Treatment, especially by Ovariotomy. By E. Randolph Peaslee, M.D., LL.D., etc. etc. With Fifty-six Illustrations on Wood. 8vo, pp. 551. New York, D. Appleton & Co., 1872.

The Anatomy and Development of Rodent Ulcer. A Boylston Medical Prize Essay for 1872. By J. Collins Warren, M.D. With two Plates. 8vo, pp. 66. Boston, Little, Brown & Co., 1872.

Report of the Philadelphia County Medical Society on Epidemics and Meteorology for the Year 1871. By Laurence Turnbull, M.D., Chairman of Committee. From the Transactions of the Medical Society of the State of Pennsylvania. 8vo, pp. 24.

Transactions of the State Medical Society of Michigan for the Year 1872.

GLEANINGS FROM OUR EXCHANGES.

First Meeting of the German Chirurgical Society (*Berliner Klinische Wochenschrift*, July 8, 1872).—A paper by Heine, of Innsbruck, upon "Parenchymatous Injections for the Dissipation of Tumors," called forth the following remarks from Billroth: "I consider it my duty to call the attention of the society to a case of death resulting from the injection of alcohol into the substance of a struma. Thiersch would have conferred a boon upon science when he first applied this means of treatment to tumors, had the results been what he claimed, and Nussbaum is perhaps right when he says it is the greatest discovery of the age. But I have devoted a great amount of time to experiments of all kinds with injections since Thiersch and Nussbaum first published their work, and especially with a solution of nitrate of silver, as first recommended by Thiersch. The results I obtained were of such a negative character that I desisted."

Subsequently his assistant Czerny, now Professor in Freiburg, made a long series of experiments with injections of tincture of iodine, nitrate of silver, chloride of gold, sesquichloride of iron, carbolic acid, gastric juice, etc. into the substance of struma, lymphatic enlargements, and carcinoma. The results were of such a negative character that they were never published.

Injections into soft tumors, such as medullary lymphoma, usually proved injurious. The same is true, according to Billroth, of the constant electric current, since it produces more rapid circulation, and hence more rapid growth in the tumor, which softens and breaks down sooner than it otherwise would.

Recent communications, however, of Schwalbe, in Zurich, have somewhat modified Billroth's views respecting the use of injections of tincture of iodine, which he thinks may be of great service, as they surely were in a large number of cases treated by Schwalbe.

Although the latter regards alcohol as the most efficacious of all injections, he cites a case of rapid death following its use in a case of carcinoma of the thyroid gland.

Billroth, however, condemns the use of alcohol in the most decided tone, though disposed to relent towards the use of tincture of iodine; and cites a case of rapidly fatal pyæmia following the injection of two hypodermic syringefuls of rectified spirit into a struma upon a woman forty years old.

Imperforate Anus.—J. H. Pooley, M.D., Yonkers, N.Y. (*Am. Journ. Obstetrics*), details thirty-eight cases of imperforate anus, the rectum communicating with the vagina. He remarks in the first place that it is not immediately or necessarily dangerous to life, for one of the patients is stated to have lived a hundred years. Three are stated to have borne children; two were in the habit of sexual intercourse, and their malformation was not discovered until they reached adult life. Others are stated to have reached the ages respectively of twenty, twenty-two, seventeen, and sixteen years. But in all these cases the unnatural opening must have been of unusual size, and in fact is stated in several to have been large enough to admit one or two fingers. These cases are therefore clearly exceptional. For though the fistulous communication may be sufficient to answer the demands of nature and avert danger during the early months of life, yet the danger is always imminent that, as the fæces become more and more abundant and more consistent, a fatal obstruction may occur.

The operation, whatever the special condition may be, consists essentially of two parts: first, to secure and maintain an opening into the bowel at the natural site of the anus; second, to close the unnatural opening into the vagina. The first is far easier of attainment than the other.

Treatment of Imperforate Anus (*Journal de Médecine et de Chirurgie*, tome xliii. part. 2).—Among the operations that may at any moment present themselves to the surgeon, that required for the relief of imperforate anus is one of the most delicate and important, and he should be prepared to meet any difficulties that may present themselves. "We too frequently neglect," says M. Verneuil, "to ask whether the new-born infant has evacuated the urine and meconium; and when it is ascertained that the anus is imperforate, much valuable time has been lost." Thus, he has himself been called upon to operate on the fourth day. He observes that the success of the operation has been made greater in recent times, when, instead of pushing a trocar at hazard in various directions, deliberate dissection has been made. This is particularly requisite where there is no projection of the rectum, or where the inferior extremity of the rectum is altogether absent. A convenient place should be selected, the infant on its belly, with the knees bent and thighs well separated. An incision should then be made from the easily found point of the coccyx, along the median raphé towards the scrotum or vulva. It is important to keep in the middle line, where we find always, as we are taught by embryogeny, in the absence of the rectum, a fibrous band which runs as far as to the membranous region or inferior third of the vagina. This is a valuable guide that must not be lost. When the incision made *layer by layer* is sufficiently deep, there may be perceived, on separating the cut edges of the wound well from each other, and directing a jet of cold water upon them, a small black point not larger than the head of a pin. This is the intestine, and if it be movable it should be drawn towards the skin. It is a fortunate circumstance when this can be done without opening it. More frequently it is only possible to seize the end of the intestine with the hook, and an incision is then made into it. The meconium then flows away, and begins at once to be a source of trouble; its flow sometimes lasts for a considerable period. It must be watched with patience, and waited for till it has finished, in order to complete the operation, which consists in sewing the rectum securely to the skin, taking care that the opening is free, and that there are no chances of retraction or of infiltration. But it may also happen that a deep incision may be made into the perineum, and nothing may be found. The situation becomes a grave one, for it is necessary to continue the dissection into the true pelvis. The operation is difficult, and the guides to it obscure. Not unfrequently the absence of the rectum exists for a considerable portion of its extent. To keep straight in this course across the pelvis, it is important not to lose the walls, the curvature of the sacrum in particular, which is a valuable guide. It is, nevertheless, attended with much difficulty, and M. Verneuil has suggested a proceeding which materially facilitates it. It consists in giving a cut with the scissors on each side of the coccyx, which can then be drawn back, and at once affords greater space to work in. In one instance M. Verneuil found a cut of a quarter of an inch long on either side sufficient, but in others it is necessary to make the incisions more than a quarter of an inch. He has thus succeeded in cases where otherwise the operation would have had to be given up, and some other attempted. Once formed, the retraction and contraction of the new anus should be prevented by directing the mother to introduce the point of the little finger into it several times a day. Most of the cases of imperforate anus prove fatal.

Absence of Spleen.—Dr. Birch Hirschfeld (*Archiv d. Heilk.*, xii. p. 190), of Dresden, found no spleen in

a new-born child which died a few hours after birth. The liver, however, was of an abnormal size, filling the left hypochondriac as completely as the right hypochondriac region, the left lobe being of the same shape and size as the right one. It weighed nearly seven ounces. No trace of the splenic vein or artery could be found.

Alteration of the Muscles caused by Traumatic or Kindred Lesions of the Nerves—Nutrient Action of the Nerve-Centres upon Muscular Tissue (*Centralblatt für Mediz. Wissensch.*, July 13, 1872, No. 29).—Prof. Westphal thus reviews a work of Vulpian, upon the above-mentioned topic, which appeared in the *Comptes Rendus*, 1872, No. 15:

If a spinal nerve, at any point between the spinal ganglion and its peripheral termination, is cut through, the nerve-fibres of the central portion undergo simple atrophy without any further noticeable change in their constituent parts; the fibres of the peripheral portion, however, of the severed nerve undergo the well-known changes (cracking or splitting of the medullary substance, etc.) denominated by Vulpian "histopathic change."

If motor nerves are severed, atrophy of the muscles supplied by them is the result, and if mixed nerves are severed, the electro-muscular contractility is greatly reduced. Vulpian, therefore, propounds the question, Are these changes due to a lesion of the motor, sensory, or sympathetic fibres of which the nerve is composed? Experiments performed by him have already shown that a section of the lingual nerve in the dog is not followed by an atrophy of the tongue, whereas such is the case if the hypoglossal nerve is cut.

The objection can be raised that the hypoglossal contains a certain number of sensory fibres, which are supplied to it by anastomosis, or from its posterior root, since in the dog and some other lower animals the posterior root of the hypoglossal nerve is provided with a ganglion. In order to remove all doubts concerning the anatomical and physiological character of the nerve experimented upon, the section of the facial nerve is adduced.

If this nerve immediately after its origin is severed, we readily obtain a granular degeneration of its fibres throughout its entire course, and the facial muscles undergo all the changes which the muscles of a limb experience after the severance of certain nerves. The facial nerve, however, is without doubt purely a motor nerve at the point of origin, and the supposition that sympathetic fibres arise simultaneously with the motor fibres of the facial nerve cannot be sustained by the anatomical facts. It is therefore a just conclusion that atrophy of the muscles and changes in contractility, after the severance of nerves, may be referred to injuries of the motor fibres. In support of this it may be urged that muscular atrophy is a sequel of disease in the gray portion of the anterior cornua of the spinal cord.

The cause of muscular change cannot be sought in a simply functional paralysis of the nerves, since a series of pathological facts, such as the permanence of nutrition and excitability of the muscles in hemiplegia or paraplegia, after compression of the upper portions of the spinal cord, and other facts, prove the contrary. Neither is an irritation of the nerves and a transmission of the irritation to the muscles a cause of the changes, since the rapidity and intensity of the muscular affection are not proportionate to the intensity of the irritation operating on the nerves. It is, in fact, of little importance, so far as the results are concerned, whether the nerve is severed or only partially cut through, or whether it is torn out, ligated, compressed, or cauterized; although the severance or excision appears to bring about the changes most rapidly and in the most marked manner.

The affection of the muscles cannot be referred to disease or changes in the walls of the vessels, since these remain healthy. In conclusion, it may be said that the disease of the muscles cannot be the simple result of the transmission of a process of disease to the muscles; if such were the case, the muscles should become healthy as soon as the nerves are restored, since the former, like the latter, possess the power of regeneration. Such a regeneration of the muscles does in fact occur if the central and the peripheral portions of the severed nerve are again united; if, however, such a union is rendered impossible, as has been done by Vulpian and Philippeaux in a series of experiments, no regeneration of the muscle occurs.

We must therefore conclude that the gray substance of the spinal centre and its prolongation, or the corresponding parts in the isthmus of the brain, exercise, by means of *motor fibres*, a genuine nutrient influence upon the muscles.

The experimental and clinical facts teach, therefore, that the cause of muscular atrophy, whether it occur in cases of injury of motor nerves or in certain cases of lesion of the spinal cord, must be looked for in the cessation and not in the increase of the nutrient influence of the nuclei in the gray substance from which the motor fibres arise.

Pregnancy at an Advanced Age (*American Practitioner*, September, 1872).—At a meeting of the Louisville College of Physicians and Surgeons, Dr. Turner Anderson reported the case of a woman, aged 51, who was delivered at full term one morning, by a midwife, of a still-born child. The placenta remained. The next day at noon he saw the patient, when he found the uterus well contracted, os dilated, and a small portion of the placenta and the cord protruding. There had been no hemorrhage. On introducing his hand he discovered the upper part of the placenta firmly adherent, while that nearest the os was detached and rolled on itself. With a little manipulation he removed the entire mass. The patient made a good recovery. She had given birth to a living child seven years before. Since that time she had menstruated irregularly. She was exceedingly thin, and her hair was white. Some months before her last confinement, she had consulted Dr. Anderson about an enlargement of her abdomen, which she thought was dropsical. On examination he heard the sounds of the fœtal heart. The patient had never for a moment suspected pregnancy. Dr. Anderson wished to inquire of the Fellows whether they had met with pregnancy in persons of his patient's age or older.

Dr. Speed stated that he was called once to see a lady fifty-three years of age, whose youngest child was nine years old. She had been visited twice that day by a physician of this city, now dead, who had given paregoric for what he said was belly-ache. Dr. Speed found the patient in labor, which ended safely to both mother and child. The woman declared she had no thought of being pregnant.

Eight Children at a Birth.—The *Boston Medical and Surgical Journal* states that, on the 21st of August, Mrs. Timothy Bradlee, of Trumbull County, Ohio, gave birth to eight children,—three boys and five girls. They are all living, and are healthy, but quite small. Mr. Bradlee was married six years ago to Eunice Mowery, who weighed 273 pounds on the day of her marriage. She has given birth to two pairs of twins, and now eight more, making twelve children in six years. Mrs. Bradlee was a triplet, her mother and father being twins, and her grandmother the mother of five pairs of twins.

MISCELLANY.

Parisian Hospitals.—The question whether the new Hôtel-Dieu is to be used for hospital purposes or converted into a building for the city government, has been decided by the municipal council in favor of the former course; but instead of the eight hundred beds which were to have been the limit of its capacity, only four hundred and sixty are to be provided, and certain changes are to be made in the original plan. The Hôpital Berck, which was built on the sea-shore for the accommodation of strumous children, has also proven an "elephant," for, besides the very considerable expense of its construction, the municipal council have just been obliged to appropriate 25,000 francs to works intended to protect it from invasion by the sea.

A novel proposal has been made by two medical men—Drs. Thulié and Marmottan—for the utilization of the Hôtel-Dieu. They suggest that the old portion of the hospital, on the left bank of the river, should be retained as a hospital, for two hundred patients; and that the new portion should be sold to a company—French or foreign—for the purpose of forming docks like those which exist on the borders of the Thames in London. They further point out, that of twenty-two *octroi* barracks around Paris, four are unoccupied, and may be readily put into repair as hospitals capable each of containing one hundred beds. To make up the number of eight hundred beds which are required, they propose the erection of a new hospital to receive two hundred patients. Whether this plan would be attended by the financial success which its promoters allege that it would have, we do not pretend to judge; but there can be no doubt that, in a sanitary point of view, the distribution of eight hundred patients would be preferable to their aggregation in one building.

Chloroform among the Chinese.—According to a reputed discovery by M. Stanislaus Julien, it appears that as far back as the third century of our era, the Chinese were in possession of an anæsthetic agent which they employed in the same manner as we use chloroform and ether, for producing insensibility during surgical operations. A description of this was discovered by M. Julien, in a work preserved in the "Bibliothèque Nationale"—called "Kou-kin-i-tong," or a "General Collection of Ancient and Modern Medicines"—which appears to have been published in the sixteenth century. In a biographical notice of Hoa-tho—who flourished under the dynasty of Wei, between the years 220 and 230 of our era—it is stated that he gave the sick a preparation of *chanvre* (Indian hemp), "Ma-yo," who in a few moments became as insensible as one plunged in drunkenness or deprived of life; then, according to the case, he made incisions, amputations, and the like. After a certain number of days the patient found himself re-established, without having experienced during the operation the slightest pain. It appears from the biography of Hoa that this *chanvre* was prepared by boiling and distillation.

Home for Middle-class Incurables.—In connection with Mrs. Gladstone's Convalescent Home, a very excellent institution was experimentally inaugurated in April last, in Brook Road, Upper Clapton, namely, an incurable-hospital for the poor middle-class. We say experimentally inaugurated, for, to insure the success of the institution, immediate and steady public support was required. It was determined to gauge its probable success by a six months' trial, and accordingly two adjoining houses were acquired at Upper Clapton for the purposes of the undertaking, in an open and detached position. The houses contain a number of small rooms, and are capable of accommodating from twenty to thirty patients. The total sum fixed upon to be paid by each patient is £20 per annum. Dr. Gardiner attends as medical officer. A comfortable home is thus placed within the reach of many incurable persons of the poor middle-class who are unable to meet the pecuniary demands and consequent discomforts of a prolonged and progressive illness. The institution has now been opened nearly five months, and it has met with only partial success; no doubt in consequence of its obscurity. It did indeed rather strangely and happily fulfil its mission during one month of its career, in affording a temporary home to the patients of the cancer-wards of the Middlesex Hospital, which, during August, was undergoing repairs.

The posting of placards of quack medicines has been prohibited in the streets of Chicago.

The Plague in Persia.—The pestilence which has been raging in Persia for two years past is said to be the true Oriental plague, marked by high fever, cerebral symptoms, buboes on the neck, in the armpits and groins, petechial spots, purpura, carbuncles, etc. The mortality averages fifty per cent., death occurring in from three to eight days. Whole villages have literally been depopulated. In cold weather it disappears.

Holloway's Hospital.—We learn from the *British Medical Journal* that Mr. Holloway, famous for his pills and ointment, is about to erect, at his own expense, a large hospital at Virginia Water. It will cost from £70,000 to £100,000, and will accommodate two hundred patients. It will be maintained for a year by Mr. Holloway, after which it is expected to be self-supporting, and will be handed over to the management of trustees.

Vaccination Objection.—A small boy in an Indiana town made several applications to be protected against the scourge of smallpox. Finally his physician was able to accommodate him with an excellent "scab" from a healthy boy; but when the patient found where it came from, he objected to the application being made for fear he would "stutter," as the boy who furnished the material was addicted to that method of articulating.

Dr. J. Baker Brown, the celebrated gynæcologist, has become paralyzed, and is in great pecuniary distress. A fund is being collected for him in London, of which Dr. Forbes Winslow is the Treasurer.

ALDINI PRIZE ON ELECTRICITY.—The Academy of Sciences in Bologna has announced that a prize of 1200 *lire* (£48) will be awarded to the author of the best scientific experimental essay on galvanism or dynamic electricity. Essays intended for the competition must be sent in between July 1, 1872, and June 30, 1874, and must be written in Italian, Latin, or French. They may be either written or printed; but, in the latter case, must not have been published previous to the two years above mentioned. Each essay is to bear a motto, and to be accompanied with an envelope stating the name of the author. They must be addressed to the Perpetual Secretary of the Academy of Sciences of the Bologna Institution.

A HOMŒOPATHIC reviewer, noticing Dr. H. C. Wood's "Year-Book of Therapeutics, Pharmacy, and the Allied Sciences," compares it with the "Annual Record of Homœopathic Literature," and says, "To the true and progressive physician both these works will become one, and will find places side by side in his library. The active practitioner knows only too well how acceptable is a word fitly spoken, even if it does not agree with his own confession of faith." Either "*similia similibus curantur*" holds good,—and Dr. Wood's book has nothing either based upon it or supporting it,—or it does not, and homœopathy is a humbug.

PERSONAL.—Dr. William Keller, after an absence of eleven years in Germany, has returned to this city to practise medicine.

Dr. Gotthilf Moehring, a well-known and much-respected physician of this city, who went abroad to live last autumn, is here at present on a visit.

The College of Physicians of Philadelphia has lost a valued Fellow in Dr. George Pepper, whose death occurred early in September.

The celebrated Dr. Louis, of Paris, who died recently at the great age of eighty-six years, was an Associate Fellow of the College.

THE ASTLEY COOPER PRIZE.—The next triennial award of this prize of £500 will be made to the author of the best essay on "Injuries and Diseases of the Spinal Cord." Essays must be sent to Guy's Hospital before January 1, 1874.

IMPERIAL GOOD WILL.—The Emperor of Austria has contributed 20,000 florins towards the International Congress of Medical Hygiene, to be held in 1873.

THE London medical profession has lately sustained the loss of two of its leading members,—Mr. F. C. Skey and Mr. Alfred Poland. Both of these gentlemen have been well known on this side of the Atlantic by their writings. Mr. Skey was President of the Royal College of Surgeons.

IN a recent number of *Le Mouvement Médical*, it is stated that in three days, "in the cities of New York, Brooklyn, and New Jersey," four hundred and eighty deaths occurred from the extreme heat.

WHEN Coleridge was asked what was "the use" of a certain new scientific discovery, he retorted by asking, "What is the use of a new born child?"

MORTALITY OF PHILADELPHIA.—The deaths reported at the Health Office for the week ending October 12, 1872, were 249; of which 144 were of adults, and 105 of minors. Among the causes assigned were:

Consumption of the Lungs	47
Other Diseases of the Respiratory Organs	10
Diseases of the Circulatory Apparatus*	15
Diseases of the Brain and Nervous System	33
Zymotic Diseases	17
Typhoid Fever	11
Casualties	9
Dysentery	3
Inflammation of Stomach and Bowels	5
Cholera Infantum	3
Debility (including "Inanition" and "Marasmus")	30
Old Age	7
Stillborn	14

* One case of "Rupture of the Heart."

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 19, 1872, TO OCTOBER 4, 1872, INCLUSIVE.

EDWARDS, L. A., SURGEON.—To report in person on 2d of October next, to the Commanding General Department of the Lakes, for assignment to duty. S. O. 227, War Department, A. G. O., Sept. 25, 1872.

GODDARD, C. E., SURGEON.—Relieved from duty at Fort Rice, D. T., upon arrival of Assistant-Surgeon Williams, and to comply with S. O. 167, c. s., War Department, S. O. 184, Department of Dakota, September 16, 1872.

WILLIAMS, J. W., ASSISTANT-SURGEON.—Assigned to duty at Fort Rice, D. T., S. O. 184, c. s., Department of Dakota.

NOTSON, WILLIAM M., ASSISTANT-SURGEON.—Granted leave of absence for thirty days, S. O. 101, Department of the Lakes, September 26, 1872.

WATERS, WILLIAM E., ASSISTANT-SURGEON.—Relieved from duty in Department of the East, and to report in person to the Commanding General, Department of the Missouri, for assignment. S. O. 218, War Department, A. G. O., Sept. 18, 1872.

BREWER, J. W., ASSISTANT-SURGEON.—Relieved from duty at Fort Walker, and assigned to duty at Camp Supply, Indian Territory, S. O. 151, Department of the Missouri, Sept. 18, 1872.

GARDNER, W. H., ASSISTANT-SURGEON.—Assigned to duty with troops constituting garrison of Fort Riley, Kansas, to proceed to camp 6th Cavalry, near Fort Hays, Kansas, and report to the Commanding Officer for duty. S. O. 155, Department of the Missouri, Sept. 26, 1872.

BROWN, H. E., ASSISTANT-SURGEON.—Directed to leave New Orleans, La., on 10th of October next, and to proceed to Washington, via New York City. S. O. 224, War Department, A. G. O., Sept. 23, 1872.

JESSOP, S. S., ASSISTANT-SURGEON.—Relieved from duty with 6th Cavalry, and assigned to duty at Fort Selden, N. M. S. O. 155, c. s., Department of the Missouri.

VICKERY, R. S., ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon De Hanne, to comply with S. O. 205, c. s., War Department, S. O. 158, Department of the Missouri, Sept. 30, 1872.

DE HANNE, J. V., ASSISTANT-SURGEON.—Relieved from duty as Attending Surgeon at these Headquarters, and assigned to duty as Post Surgeon, Fort Wingate, N. M. S. O. 158, Department of the Missouri, Sept. 30, 1872.

DELANY, A., ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Jessop, to comply with S O. 205, c. s., War Department, S. O. 155, c. s., Department of the Missouri.

COWDREY, S. G., ASSISTANT-SURGEON.—Relieved from duty at Camp Supply, Indian Territory, and assigned to duty at Fort Larned, Kansas. S. O. 151, c. s., Department of the Missouri.

REYNOLDS, F., ASSISTANT-SURGEON.—To report in person to the Attending Surgeon, Portland, Oregon, for medical treatment. S. O. 113, Department of the Columbia, Sept. 11, 1872.

ASCH, M. J., ASSISTANT-SURGEON.—Granted extension of leave of absence until March 31, 1873, and his resignation accepted by the President, to take effect March 31, 1873. S. O. 224, War Department, A. G. O., Sept. 23, 1872.

SATURDAY, OCTOBER 26, 1872.

ORIGINAL COMMUNICATIONS.

A FEW UNUSUAL SURGICAL CASES.

BY WILLIAM HUNT, M.D.,
Surgeon to the Pennsylvania Hospital.

DURING the last two or three terms of my service at the Pennsylvania Hospital, some cases entirely out of the usual run have occurred, which I think are worthy of record. As they are very definite in character, I relate them without tedious detail of dates and special symptoms, for if required these can be obtained from the record and from private notes.

1. *Gunshot Wound of Innominate Bone and Head of Femur; Necrosis of the Head and Removal of it. Recovery.*

A boy about eighteen years of age, living somewhere in Illinois, I think, drew his gun, loaded with shot, towards him by the muzzle; it went off, and the charge was received over the outer portion of the left groin, and must have fractured the iliac bone and head of the femur. The boy was under treatment for a long time, and was finally brought to Philadelphia and admitted into the hospital. He was helpless, and very much reduced from abscess at the seat of injury. The right leg was shortened and everted, there were deep sinuses with small external openings in the groin and through the glutei and upon the external aspect over the trochanter. Examination with the probe demonstrated the existence of large pieces of loose bone, apparently in the cavity of the joint. I made a large and deep semilunar incision above the trochanter, introduced the bone forceps, and drew out the *necrosed head of the femur* and several other fragments evidently from the ileum. Examination with the finger showed the cavity to be clean, and the openings afforded abundance of room for drainage in every direction. The limb was supported by sand-bags, and the foot secured to the bed. Very rapid improvement took place, and in a few weeks the patient was up and moving about with crutches. Within two months the sinuses were entirely healed, and shortly afterwards he was discharged in first-rate condition, merely requiring the use of a cane for walking.

The early history of this case is obscure. The patient stated that the fractures were not recognized at the time of the injury, or at least, if so, he did not know it. It is scarcely credible to me that this extensive separation of fragments of bone was altogether secondary. In fact, the large masses of callus about the anterior superior spine would point to original fracture; and if so, this is a striking instance of the wisdom of delay (although in this case unintentional) before attempting the excision of the hip-joint in cases of acute and extensive injury.

2. *Fracture of Neck of Femur completely within the Capsule in a Young Man, apparently from a Direct Blow.—Curious Ability to Walk after the Injury.—Death from Pelvic Abscess.*

On an afternoon of June, 1871, a man twenty-six years of age, complaining of injury to his hip, *walked* into the lower ward of the hospital. He was regarded there as having a contusion, and was sent to the third-story ward. He required some assistance to mount the stairs, and suffered considerable pain in doing it. He stated that the day before, whilst working at a bridge on the Media Railroad, a heavy wooden girder had fallen and struck him violently across the upper portion of the left thigh and groin. He fell to the ground and was carried to a shanty, where he remained all night, suffering a great deal of pain. The next morning with some assistance he *walked* to the steam train, got off it at Philadelphia and into a street-car at the station. He rode to the nearest point to the hospital gate, and then, with the aid of a stick only, *walked* to it, a distance of nearly two hundred and fifty yards. His progress to the ward is stated above.

The patient was placed in bed and examined, but no positive diagnosis was arrived at, and my attention was called to him on the following day.

Ether was provided; but, without its use and notwithstanding the history, I made out that there was fracture of the neck of the bone. There was eversion, shortening to the extent of half an inch, and deep but unmistakable crepitus. There was a large bruise upon the upper and outer aspect of the thigh, over the trochanter and anterior superior spinous process.

The adhesive strap extension and lateral support with sand-bags were applied, to the great relief of the patient, who progressed favorably for about twelve days, when considerable fulness was detected along the line of Poupart's ligament. Great pain was complained of, and symptoms of pelvic abscess soon declared themselves.

There was fever, with accompanying nausea, vomiting, and sweats; obscure fluctuation was soon apparent, and an exploratory puncture brought out some thin pus and broken-down blood.

The patient sank rapidly, with pyæmic symptoms, and died on the twenty-seventh day from the date of his injury.

Besides the lesions of the viscera that accompany pyæmia, there was recent local peritonitis in the left iliac region, the tissues of which were involved in an abscess.

The innominate bone was not fractured, but the neck of the femur immediately *behind the head was broken directly across*, the lines of fracture being completely within the capsule of the joint.

This case is remarkable from two circumstances: one, the youth of the patient; of forty fractures of the neck of the bone spoken of by Hamilton, excepting one case of supposed epiphyseal separation, the youngest was thirty-nine years of age.* Second, the same authority also says that fracture of the neck of the femur from a direct blow is a very rare circumstance. "Indeed," he says, "it can only happen as the result of gunshot accidents or other similar penetrating injuries."

It may be said that the fracture in this case was produced by the fall after the blow was received; but the injury of other parts immediately in the neighborhood of the bone was so great as to fully demonstrate the violence that was sustained, and to render it highly probable, I think, that the fracture also occurred at the same time.

Was this an impacted fracture? How else shall we explain the ability to walk? But would an im-

*[Mr. Stanley's celebrated case, intracapsular with bony union (see *Med.-Chir. Transactions*, vol. xviii.), was that of a boy of eighteen.—ED.]

pacted fracture be likely to resolve itself so early as the second day after the injury was received, so as to make the fragments easily movable on each other? Is it possible that the fracture was so close to the head as to allow the neck to rest against the edge of the acetabulum, and thus give temporary support?

3. *Astragalo-scaphoid Luxation with Twist of the Astragalus. Reduction and Recovery.*

One evening I received a note from my resident, stating that "he had never seen such a case as had just come into his ward," and requesting a visit from me. I immediately went down, and found a case the like of which I also had never seen, although it was not unique.

A young man from twenty to twenty-five years of age, the driver of an express-wagon, had a horse to fall upon him. He was unable to rise without assistance, and was brought to the hospital. The injury was of the right foot.

The deformity was very peculiar. The portion in front of the ankle was strongly everted, while almost immediately under the internal malleolus was a rounded projection with the skin very much tightened over it, which upon examination proved to be the head of the astragalus completely thrown off from the scaphoid, and so twisted that a line projected from the centre of it would pass across the middle of the opposite foot, instead of through the great toe of the same side.

The parts were almost immovable before etherization. After the patient was most thoroughly under the influence of the anæsthetic, I made a careful examination of the relations of the parts. With the aid of two assistants, one at the foot, and the other at the leg below the knee, flexing and extending according to directions, I had the good fortune to suddenly manipulate everything into place. The parts were then very freely leeched, cold was applied, and the limb put to rest in a fracture-box.

There was great swelling afterwards, but this subsided, and in four or five weeks the patient was allowed to get up, having the parts well supported by a silicate bandage. He was soon ready for discharge, and I have since seen him about the streets engaged at his former business.

4. *Foreign Body in the Bladder.*

A youth with some very peculiar ideas tied a string to one of the galvanized watch-chain catches that are worn through the vest button-hole, and then passed it down his urethra. It suddenly slipped into the bladder, the string hanging out of the orifice of the urethra. On inquiry, I found that the tie was unfortunately at the middle of the object, and hence this presented itself crosswise when it was drawn to the neck of the bladder. Various efforts were made with different instruments to catch the body in the right direction, but all in vain; and at last the string, which had been a good guide, broke.

After a few more trials at seizure without success, I concluded that enough had been done at one sitting, and that, if not successful in other ways, lithotomy would have to be resorted to.

One other way was tried. It was this: I directed the boy to drink very freely of flax-seed tea and nitre, and to hold his water as long as he possibly could, and then, at the very first effort, to drive his stream with all the force he was capable of, in the hope that the body might present longitudinally and be forced out. These directions were followed strictly and with complete success.

At the first urination, the object was shot out against the side of the vessel, and the patient was at once relieved.

5. *Refracture of the Bones of the Leg, and Tenotomy for the Cure of very faulty Union. Recovery.*

A sailor, aged thirty-seven, was admitted to the hospital on the 19th of February, 1872. He could scarcely walk, and for practical purposes his left leg was almost useless. He stated that some time in the summer of 1871 he had fallen from the rigging while at sea, and besides breaking both bones of the left leg about the middle, he was severely hurt about the hip of the same side, although there was no fracture in this latter position. He was on the ship for nearly three weeks, was then removed to a hospital in Liverpool, where he remained for some months, was then discharged and came to this country.

Remarkably firm bony union had taken place at the seat of fracture. There was great angular deformity, and the foot was in the position of marked equinovarus, the sole presenting towards the opposite side, the heel raised, and but a limited portion of the internal edge of the foot capable of being brought to the ground. There was a large cicatrix on the outer aspect of the hip-joint, the movements of which were impeded by adhesions.

The patient stated that he came in to get relief in any form possible, and was willing to submit to amputation, or to any effort to save the limb and make it useful, even at the risk of his life.

His general condition was bad, and shortly after admission he had a severe attack of sore throat, from which he was some time in recovering.

It was concluded on consultation to make an effort to save the limb by refracture and tenotomy.

The patient was placed on the table and etherized. A large-sized drill was then applied to the tibia through a small external incision. I bored completely through the bone in three or four different directions, immediately at the seat of fracture, withdrawing and entering always at the same external opening.

Then bringing the limb over the edge of the table for a fulcrum, it was broken by the united efforts of myself and colleagues, Drs. Hewson and Morton. The force required was all that we could put on, and when the bone broke, it was with a surprisingly loud and sharp crack, not unlike the report of a pistol.

The tendo Achillis was then divided, the stiffness of the hip was removed by breaking up the adhesions, and the whole limb could be brought in good position with very little shortening.

A stout pasteboard splint, well fitted to the external aspect of the foot and leg, was applied; a moderate degree of extension by adhesive strips was maintained, and strips also were used to keep the foot in a position of slight eversion. The extension was abandoned after a short time as not requisite, and the limb with the other dressing complete was placed in a fracture-box.

The wounds were dressed with plaster, and to the one over the fracture, water was applied.

There was of course great shock at first, but when this passed off, the case went on very favorably for about six weeks. There was slight suppuration, and I removed several small pieces of dead bone from the wound. After this the patient had a very severe attack of what appeared to be hepatitis and pleurisy combined, and at the same time there was formed at the wound over the fracture an ugly, deep, gangrenous slough. From the appearances, and calling to mind the attack of sore throat before operation, I had suspicions of syphilitic contamination, and directed iodide of potassium and bichloride of mercury.

For a time life was despaired of, as his condition was

extreme. Gradually, however, amelioration of all the symptoms took place, the slough separated, leaving a healthy ulcer, and I was surprised to find that the progress of union of bone had not been in the least interfered with by the attack.

When I left duty on the 1st of August, the patient was able to walk, bringing the foot flat to the ground, and to perform all natural movements with the limb. Union was solid, the tendo Achillis had been repaired, and the motions of the hip were restored.

He called on me a few days ago (October 1), perfectly well. A slight limp was perceptible, owing possibly to the shortening (not more than one-fourth inch), and he is in every way as well as he would be had he made an ordinary recovery from the original injury.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

CLINIC OF PROF. S. D. GROSS, M.D.

Reported by FRANK WOODBURY.

FOREIGN BODY IN THE ŒSOPHAGUS.

A BOY, three years of age, was brought before the clinic, September 7, who had, while playing about five months before, accidentally swallowed a cent and a three-cent piece. The copper coin shortly afterwards passed through the bowels, but the three-cent piece remained. Since the date of the accident the child has been unable to eat solid food, because, in the attempt at swallowing, it was rejected by an act of regurgitation from the œsophagus; he has consequently been subsisting exclusively upon broths and milk. He has also some trouble in breathing, which at times is greater than others.

This coin has evidently been retained in the œsophagus instead of passing into the stomach, but nothing can be seen of it on looking down the throat. We will have this patient return for operation, and then endeavor to force the coin downward into the stomach, with a probang. It may afterwards be unable to pass the pylorus, or may cause trouble in the bowel, for which we cannot be responsible.

Foreign substances generally come in this situation from the food, such as the small bones of chicken or fish, pieces of meat or gristle, etc. Artificial teeth are sometimes swallowed, and lodge here. Ladies are very fond of putting pins in their mouths, and these frequently find their way into the œsophagus. These obstructions generally produce great uneasiness, alteration of voice, and, occasionally, difficulty of breathing from spasm of the glottis. Large substances have produced strangulation, in the same manner as if contained in the trachea.

When you are called to a case of this kind, the first indication is to remove the offending substance. If it is visible, it may be extracted with the fingers or with a pair of polypus forceps, in order to do which an anæsthetic may be necessary. The direct emetics, such as the sulphates of zinc and copper, and mustard with plenty of warm water, will often be successful in expelling the offender. A case is on record where, the patient being unable to swallow, the surgeon administered an emetic through a gum-elastic catheter; this was followed by prompt emesis, forcibly expelling the substance. It is a remarkable and important point that, after the article is extruded, the irritation may remain for some time, giving the impression that the substance is still present; this may remain for several days or even weeks. The philosophy of this is exactly the same as in that trick of legerdemain where a coin is pressed strongly into the palm of your hand for an instant, and adroitly removed as the hand is closing, leaving such a strong impression that you are absolutely certain that the coin is still there, until you open the hand and find it has disappeared.

In removing the offending article from the throat by means of instruments, some care must be exercised. A case in point occurred some years ago in Cincinnati, where a woman, supposing that she had swallowed a pin, was attended by a physician, who endeavored to extract it with an ordinary dress-hook, fastened to the end of a piece of whalebone. He failed to find the pin, but in his efforts he lacerated the mucous lining of the pharynx and œsophagus so severely, that the patient died from the ensuing inflammation. Some years ago I devised a special instrument for the purpose of removing articles from this situation. It consists of a curved steel rod, about fifteen inches long, covering a stylet surmounted at its extremity by four wing-like processes, which are closed and expanded by turning the handle of the instrument. When the article cannot be extracted or consists of digestible substance, we may push it into the stomach with a probang. The foreign substance may, after a time, become buried in the wall of the œsophagus, and so offer no obstruction to the instrument, which passes directly into the stomach. This possibility should lead us to be careful in our diagnosis; many such cases are recorded where nothing, during life, could be detected, though all the rational signs were present, but at the post-mortem examination the substance was discovered concealed in this way.

If the offending body is immovable, the œsophagus may be opened in the neck, by an incision, commencing on a level with the superior border of the thyroid cartilage and running downwards, parallel with the sterno-cleido-mastoid muscle. After the tube is opened and the substance extracted, the edges of the œsophageal wound are brought together by the interrupted suture, using silk threads, which are afterwards cut short so as to allow them to ulcerate through into the passage. The patient is then supported for a couple of weeks on strong meat soups, introduced by a tube into the stomach, or, which is better, injected into the rectum. The results from this operation have been very encouraging. When all reasonable attempts at extraction fail, the best plan is to resort at once to the knife; otherwise, complications may arise, interfering with the success of the operation, and endangering the patient's life.

A CASE OF ANKYLOBLEPHARON.

In this patient, a girl twelve years old, there has been severe inflammation of the eye, followed by impairment of vision and adhesion of the lower eyelid to the ball. This is not only disfiguring, but prevents the adjustment of an artificial eye, therefore calling for operation.

This affection is usually produced by scalds and burns, or by the contact of the stronger acids or quicklime. After administering chloroform, we shall proceed to dissect apart the morbid adhesion of the two contiguous conjunctival surfaces, and to prevent their reuniting will introduce a piece of lead-foil cut to fit the part. The lids will then be brought together, and held with isinglass plaster. The cure will require three or four weeks, during which time the foil will be removed and cleansed daily, and the eye carefully washed before replacing it.

STRUMOUS ENLARGEMENT OF THE ANKLE-JOINT.

A pale, poorly-developed boy of six years, was brought to the clinic by his father, on account of a chronic swelling of the ankle-joint of the right foot. About eighteen months before, he first experienced difficulty in walking, and the joint became swollen, painful, and easily fatigued; all of these symptoms being attributed to a supposed sprain. But they have not subsided under the usual remedies, the condition remaining permanent. His father is a very nervous man, but says he never had any sickness or disease, and thinks there is no scrofula in the family. The little patient is restless at night, and screams and starts in his sleep. His appetite is capricious; the tongue is not much coated.

On examining the child's limbs, we find the affected joint manifestly much larger than the left one. With the hand applied over its surface, we notice that it is four or five degrees warmer than its fellow, indicating, by this elevation of temperature, that inflammation is present. The joint is tumefied, but the deformity and induration are mainly produced by strumous enlargement of the lower ends of the tibia and fibula. The patient is thin and puny; his countenance, which is sallow and anæmic, wears an uneasy expression. He has the light complexion and light hair of scrofulous subjects, and we find the cervical glands enlarged. This affection is a case of tubercular disease of the joint, or white swelling, as it is commonly called; often seen in scrofulous children, frequently in the form of hip-joint disease or coxalgia. The cutaneous veins are enlarged around the joint, as they very generally are in cases of this kind. The swelling present is not due to effusion of serum or lymph in the tissues around the joint, but is within the joint itself, being produced by a morbid increase of the natural moisture of the joint. Let us examine the structure of a joint. We have the contiguous articular cartilages and capsular ligament, lined by a synovial membrane, which, in health, is quite delicate and secretes just enough moisture or halitus to lubricate the opposing surfaces. When in a state of inflammation, this fluid is poured out in excessive quantity, so as to distend the capsular ligament and stretch the other ligaments in every direction. In such a case the fluid in the joint is clear and pellucid, with, perhaps, a few flakes of unorganized lymph floating in it, but contains no pus. When the morbid action is of a strumous character, this synovial membrane sometimes becomes enormously enlarged, and the articular cartilages, being intimately connected with this membrane, participate in the disease. It has been gravely stated, by some writers, that these cartilages are without vessels and nerves. This is absurd. You can disprove it at any time by going to a butcher and making a section of a fresh joint. Where the morbid action starts, whether in the cartilage or synovial membrane, is a mooted question. But wherever it commences, we know that it ultimately involves all the structures of the joint, including the bone, which becomes eroded. After the disease has existed as long as it has in the present case, it is entirely out of the question to expect that the proper function of the joint can ever be entirely restored to the patient; but he may have a useful foot. During all the time the disease has been in progress, he has been using the ankle and the joint has been constantly in motion. Here are two surfaces in a state of inflammation, that have been rubbed together more or less rudely when they should have been kept perfectly quiet. If you had an inflamed finger, would you use it? No; because if you did, the pain and aggravation of the morbid action would warn you to keep it at rest and in an elevated position, so as to hasten the reflux of blood from the part, and relieve the passive congestion produced by gravitation. Nor would you use an inflamed eye; you would avoid anything that would irritate it; and this applies especially to a joint in this condition. Then what shall be the treatment? Rest, as perfect as can be attained, which is absolutely essential to a speedy cure. To secure this, we will order the limb to be encased in a splint, or in an instrument so constructed as to keep the foot a little relaxed and the joint perfectly quiet. As inflammation is present, the foot must be kept elevated and wrapped in a strong solution of acetate of lead. He must keep his bed for the present, and not attempt to use the joint until the morbid action is controlled. His diet will be nourishing: eggs, milk, stale bread, mutton-broth, tenderloin-steak rare broiled, vegetables and fruit. If he has pain at night, we will give him six or eight drops of laudanum as an anodyne. He may take as a tonic:

℞ Quiniæ sulphat., gr. j;
Acid. sulphuric. aromat., gtt. j;
Tinct. ferri chlorid., gtt. x. M.

thrice daily.

If this were an adult, we might apply a large blister over the joint so as to stimulate the absorbent vessels; but at this tender age we must be careful, as we might excite severe action that would be difficult to control. Tincture of iodine is also useful for the same purpose, but we will not apply it here.

OPERATION FOR HARE-LIP.

The affection existing in this infant is known as simple hare-lip; if it existed on both sides of the median line it would be called double hare-lip, deriving its name from the supposed resemblance it bears to the upper lip of the hare. Some writers speak of it as occasionally existing in the lower lip, but I have never seen it there, and consider this a misstatement. Curiously enough, this condition is frequently hereditary, being traceable backward, in some cases, for several generations. It is congenital in its origin, having the same pathology as cleft palate, spina bifida, congenital hernia, exstrophy of the bladder, or deficiency of the anterior wall of the abdomen with eversion of the bladder. These are all analogous affections, being due to an arrest of development of special parts, for reasons which I am unable to give.

As to the proper age for operating; you should always operate upon a healthy infant as early as possible. This little girl is thirteen weeks old, but in several instances, where the child was well nourished and healthy, I have performed the operation within a few days after birth. Of course, if the child is puny, anæmic, or sickly, you would defer such interference until it was better able to sustain the shock and loss of blood. The existence of a co-existing cleft in the jaw is a strong inducement to operate early, as the pressure of the tightened lip upon the bone always promotes early closure. Never operate if the child has a cough.

The surgeon, in operating, holds the child's head firmly between his knees; the body, wrapped in a sheet, being confided to an assistant. Three steps are to be taken: first, separate the lip from the gum and alveolar processes, as far up as the nose, if necessary to get the proper amount of material; second, pare the edges of the fissure so as to produce raw surfaces for coaptation; and third, approximate the edges by the twisted suture or by pins surrounded by a waxed ligature, in an elliptical form, not in a figure-of-eight, as recommended by some writers. The points of the pins are then removed with the pliers.

The child should be put to the breast immediately after the operation; if it appears to suffer much pain, we will give it a drop or two of laudanum. The upper and middle pins are withdrawn at the end of forty-eight hours, the lowest one remaining a day longer. We do not take away the thread, as, with the exuded

lymph, it acts as adhesive plaster, and will be left to support the part until it comes away of itself.

The operation was then performed; no chloroform was given. If the subsequent inflammation should tend to run high, a little aperient medicine was directed to be administered, and a cold-water dressing applied to the part.

INJURY OF FINGER FOLLOWED BY NECROSIS.

This patient, a man thirty-eight years of age, had the third finger of his left hand accidentally crushed in a machine about six weeks before. Violent inflammation supervened, accompanied by severe pain, exhausting and depressing his nervous system, destroying his appetite, and preventing sleep. The second phalangeal joint was laid open, its structure destroyed by the morbid action, and necrosis of the first and second phalanges followed. The finger is now tumefied, hot, discolored and painful, showing the presence of inflammation. There is a large sinus leading into the joint, which discharges unhealthy pus mingled with small particles of bone.

The question now is, Would it be better to attempt to moderate the morbid action and save the finger, or to remove it at once? If this patient were a lady, we would wish to avoid deformity; the presence of a finger, even though stiff, would be far preferable to its removal; but in a working-man, who uses his hands to earn his living, the stiff finger would be in his way, and would constantly be bruised and injured. Therefore, in such a case I always consider amputation as perfectly proper and justifiable.

Amputation of the finger at its junction with the metacarpal bone is easily performed by making two incisions, commencing at the centre of the knuckle, which, gradually diverging, circumscribe the finger and meet on its palmar surface in a line parallel with the web of the adjacent digits. The finger is forcibly flexed during disarticulation, so that the extensor tendon may be severed above the joint; otherwise it might interfere with the stump. The projecting part of the metacarpal bone should be removed with the bone-forceps, in order to give a more seemly appearance. During the after-treatment, a splint must be applied and the adjoining fingers kept separated; otherwise they may overlap each other, thus producing deformity and interfering with their usefulness.

Chloroform was administered and the operation performed. The danger that now threatens our patient is tetanus, which may indeed follow any wound; erysipelas may also be a complication; but these need not deter us from an operation if we have taken all the precautions in our power to protect our patient and obtain a successful result. Having done this, we have performed our duty, and must leave the rest with Providence.

[The operation was followed by a speedy recovery, without any untoward symptoms. On dissecting the joint, the articular cartilages and the synovial membrane were found to be entirely destroyed and the bone eroded; the amputation, therefore, was eminently proper and necessary.]

WILLS OPHTHALMIC HOSPITAL.

SERVICE OF GEORGE C. HARLAN, M.D.

Reported by CHARLES K. MILLS, M.D.

TWO CASES OF SYMPATHETIC OPHTHALMIA.

H. S., æt. 23, two years before his appearance at the hospital, was struck in the right eye with a slung-shot, and had ever since been blind in this eye, in which also he had had almost constant pain and inflammation. The ocular conjunctiva was greatly engorged; a dense opacity covered the whole of the cornea, and there were cicatricial evidences of a rupture in the sclerotic near the corneal margin. He stated that since the injury he had used a great variety of eye-washes, prescribed by different doctors, but with only slight temporary benefit.

The left eye had been "weak" ever since the accident to the right, watering at times, and being intolerant of strong light. He could not read with it more than a few minutes at any one time. Vision equalled $\frac{20}{XX}$, but accommodation only $\frac{1}{6}$.

On consultation, it was decided to remove the injured eye; and enucleation was performed. The day after the operation, the accommodation in the remaining eye increased to $\frac{1}{3\frac{1}{2}}$, and four days afterwards he was discharged, this eye being strong and well.

M. J., æt. 37, a miner, eight days before admission to the hospital, was struck in the right eye with a piece of coal, which flew up from the pick with which he was mining. He did not notice any bad effects until about twenty-four hours after the accident, when the eye began to inflame, and became extremely painful. Although treated at his home in Scranton, the eye grew rapidly worse, and at the time of admission it was completely disorganized, an unsightly bulging mass, and so terribly painful that it was necessary to use hypodermic injections of atropia in the temple. The left eye was sympathetically affected, slightly inflamed, intolerant of light, etc. The day after admission, anterior section was performed. In a few hours the sympathetic symptoms in the uninjured eye had entirely disappeared. The man was discharged in ten days, with a good stump, no pain, and no inflammation.

SPASM OF ACCOMMODATION.

Y. R. H., æt. 22, complained of a slight indistinctness of vision, or "mistiness" before his eyes, for distant objects, on looking up from reading, or fine work. He had been troubled in this way for five months, the affection coming on after he had been studying all night for two nights in succession.

Refraction was found to be normal, and accommodation $\frac{1}{4}$ in each eye; there was no insufficiency. He read from choice at about 14″.

Testing him with Snellen's large type, his vision was nearly $\frac{20}{XX}$ for both eyes; but after reading fine print for fifteen minutes, distant vision was reduced to $\frac{20}{L}$. On resting his eyes, however, for a few moments, the former acuteness of vision for distance returned. When allowed to read with a $+\frac{1}{24}$ glass, the change in vision just mentioned did not occur. No latent hypermetropia was revealed by atropia, a strong solution of which was instilled. Iron, quinine, and strychnia were prescribed, and the accommodation was kept at rest by atropia.

INTERSTITIAL KERATITIS.

In a former clinical report of Dr. Harlan's service, the history, condition, and treatment of two typical cases of inherited interstitial keratitis were given; but owing to the patients not returning to the hospital as desired, the results of treatment could not be noted. In the present case, ample opportunity was afforded to record the speedily beneficial effects of specific and local treatment.

L. M., æt. 9, a school-girl, nine weeks before applying for treatment, without any cause known to herself or to her mother, who came with her to the hospital, had begun to be troubled with sore eyes.

Both corneæ over the whole of their surfaces presented a marked "ground-glass" appearance. A commencing vascularity was noticeable at the margin of the left cornea, and a slight vascularity extended half

across the right cornea. Both eyes exhibited episcleral zones.

The history of the patient and her family was interesting, and conclusive as to the origin of the disease. The child's mother had been married twice. She had six children by her first husband, all living and healthy, except one which died in infancy. By her second husband she had also six children, four of whom were still-born; one was living, and apparently healthy, the other was the subject of the present report. Little definite information could be obtained in regard to the second husband, but he was not healthy.

This child had been affected with catarrh of the nasal passages when a baby. Fourteen months before her eyes became sore, she had had an eruption on her scalp. Both tonsils showed signs of ulceration, and the cervical glands were slightly swollen. The teeth were very characteristic, three of the lower incisors having single notches, one having two notches. All the teeth of the upper jaw were irregular and diseased; two of the second incisors were partly through, and both notched. A curious incident occurred in examining the case. On a doubt being expressed as to which were the "second teeth," the mother remarked, "Indeed, doctor, you can easily tell, for her second teeth all have notches."

The child was immediately placed upon the bichloride of mercury, gr. $\frac{1}{48}$, with iodide of potassium gr. iv, three times daily; ten drops of the syrup of the iodide of iron, three times daily, were also prescribed. Locally, a solution of sulphate of atropia, one grain to the ounce, was ordered to be instilled twice daily, and calomel was dusted into the eyes every other day.

In one month, under this treatment, the right cornea was almost clear, and the left was rapidly clearing. In two months there was scarcely a perceptible shade in either eye.

Action of Quinia on the Uterus.—Dr. James Bordley, of Centreville, Md. (*Am. Jour. Med. Sciences*, July, 1872), practising in a region greatly infested by malaria, affirms that the true physiological action of cinchona, so far from producing any uterine contractions, tends directly to control such an action, and to suspend contractions which threaten abortion. Those threatenings which are the result of malarial disturbance are alluded to more particularly. If it be true, as is asserted by some, that cinchona diminishes the proportion of fibrin in the blood and lessens its coagulability, it seems to him a most dangerous remedy to employ for the purpose, even were we to admit that it possesses such emmenagogue power when given in rational quantities.

Dr. O. H. Seeds, of Columbia, Texas, says (*Am. Jour. of the Med. Sci.*, October, 1872), "I have very closely observed the action of quinia on the uterus, and feel convinced that in dysmenorrhœa, amenorrhœa, and other diseases of the uterus resulting from a malarial cachexia, such as occur in this region, the only effect observed from that medicine is that of a stimulant to the organ, tending to restore its healthy function. I have not seen a case of abortion that could be attributed to the action of that remedy."

Dr. S. then mentions the case of a mulatto girl who was seen by him, having taken seventy or eighty grains of quinia to "bring on her sickness," she being four and a half months pregnant. Violent symptoms were induced, but subsided under treatment, and she went her full time, being then safely delivered of a healthy child.

Dr. R. H. Rutland, of Las Animas, Colorado, confirms, in the same number of the *Journal*, the testimony above quoted.

Per contra, Dr. Deneffe reports (*Annales de Gand*, June, 1872) two cases from his own practice, confirming the opinion of Monteverdi and Bouqué on the efficacy of sulphate of quinine as supplementary to ergot of rye.

The first was that of a young lady whose menses had usually been regular, but exposure to cold had suddenly suppressed them at the period immediately preceding her illness. Her period coming on again, the flow was abundant, and soon amounted to a menorrhagia. As she was away from home, a physician was called, who prescribed perchloride of iron, but without effect. On Dr. Deneffe's return he ordered sulphate of quinine, to be taken in 1½ gr. pills every hour; this almost immediately checked the hemorrhage.

The second case was that of a lady whose menses had been suppressed for a time by the influence of violent emotion, but afterwards reappeared with a hemorrhagic character, alarming the patient. She was confined to her bed, and the least movement increased the flow of blood. Sulphate of quinine was ordered, as in the previous case, and, the better to test the power of the drug, she was ordered to rise and walk about. The next day the menses had lost their hemorrhagic character, and on the second day they had ceased entirely. These observations seem to support the theory of Monteverdi and Bouqué that quinine acts as an excitant of the involuntary muscular fibres.

Dr. Josef Hehle (*Wiener Mediz. Presse*, No. 29, July 21, 1872), an Austrian military surgeon, narrates a case of retained placenta expelled by the use of quinine, which occurred in the practice of his friend Dr. Ruziczka. The amount given was twenty-one grains of sulphate of quinia in less than twelve hours. In twenty-four hours from the time of administering the first dose (three grains), the uterus contracted powerfully, and the placenta was expelled. Dr. Hehle says that in such cases the maximum dose should be one scruple. Twelve grains is a medium dose, while six grains will produce in delicate constitutions the menstrual flow, as well as abortion, if the drug is administered at the time that menstruation should occur.

For obstetrical purposes, as for the treatment of periodical fevers, the writer says small doses, repeated frequently, have the greatest effect.

Dr. Ludwig Pollak, of Kaposvar, Hungary (*Wiener Mediz. Presse*, August 18, 1872), says the effect of quinine is seen especially in malarial regions, and that in his own town the common people produce abortion at will by using quinine in large doses, which they procure of the apothecary under the name of "fever-powders."

This effect, however, is exerted by quinine only during the early months of pregnancy, whereas, in the later months, half a drachm per diem may be given with the greatest impunity.

This writer also states that six to eight grains of quinine per diem, in the early months of pregnancy, are sufficient to cure the most severe periodical fever, which in the non-gravid woman would require several scruples of the alkaloid to produce the desired effect.

So far as the expulsive effects of quinine are concerned in the third stage of labor, it may be said that the operation, if a specific one, is very slow, and not to be thought of when speediness of contraction in the fibres of the uterus is demanded.

The *Medical and Surgical Reporter* says that Dr. Felix von Niemeyer's large and valuable library has, since his death, been bought by Albert Moser, of Tübingen, a bookseller, who has carefully catalogued it, classifying it under the same headings as Niemeyer's "Practice." The catalogue contains two hundred pages, and can be obtained from L. W. Schmidt, German bookseller, 24 Barclay Street, New York City.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

SPECIALTIES IN MEDICINE.

IT is not a very long time since it was the general opinion of the profession that a "specialist," if not a quack, was a good imitation of one. Within ten years, indeed, a committee of the American Medical Association solemnly presented to that body a report adverse to the practising of specialties. We have not that report at hand, but we know that it met the approval of many men of great good sense and of no narrow views.

And yet the "inexorable logic of events," the constantly increasing practice and influence of specialties, is, it cannot be denied, settling this question in just the opposite way. A few words will show why this is, and how any tendency to evil in this quarter is to be averted.

In the remoter country districts, in small villages, and even in towns of some size, the "doctor" attends alike to labor-cases, fractures, dentistry, fevers,—all the ailments of the neighborhood. Under this system, one scarcely knows whether to wonder more at the ability and skill which some of these hard-worked brethren develop, or at the needless waste of precious life which the stupidity and ignorance of others do occasionally involve.

As population increases, in larger towns and in cities, and with it the number of physicians, there are certain men who deservedly acquire a reputation for skill in certain cases, and about whom practice crystallizes, as it were, in these special lines. Success in surgery legitimately brings other surgical patients; in midwifery, other obstetric cases; and so on. All this is clear; and now, when we consider the vast advances of modern science, and the wide range of reading necessary to keep pace with the literature of any one branch of practical medicine, is it not obviously for the benefit both of the profession and of the people that each workman should have a chance to thoroughly cultivate a smaller field, rather than to cover more ground less effectively?

We contend that so long as a complete medical education is required of every graduate,—a thorough foundation upon which the study of any special branch may be based,—advantage only can arise from the subsequent partition of the field of labor. Such a system would by no means tend to produce surgeons who could not recognize pneumonia, or physicians who could not detect an ordinary fracture: it would not develop *narrowly*, but *highly* cultivated men. This universality of education is the great safeguard, and will always keep the scientific specialist distinct from the quack.

THE AMERICAN PHARMACEUTICAL ASSOCIATION.

THE twentieth annual meeting of this body was begun in the Central Rink at Cleveland, Ohio, on the 3d of September, and lasted four days. Its proceedings, although not of immediate interest to physicians, will doubtless be of indirect value to the profession at large, affecting, as they will, the progress of so important an auxiliary to medical science.

We note that a proposition for taking the business matters of the Association out of the hands of the members, and placing them in charge of a Council, was not favorably entertained; a motion to indefinitely postpone the subject having been carried without a negative vote.

Another important item was the reading, by Prof. William Procter, Jr., of a communication from the lamented Edward Parrish, on the subject of the preliminary education of young men proposing to qualify themselves for carrying on the drug business, and what preliminary examination, if any, should be required by the colleges of pharmacy. This paper is said to have been "of exceeding interest," and we judge that it took the ground that much higher qualifications should be demanded than at present. A full report of it may be looked for in the proper channels.

The next meeting of the Association will be held in Richmond, Virginia, beginning September 18, 1873.

DENTAL COLLEGES.

THE Philadelphia Dental College will begin its winter session of lectures on the 1st of November. Dr. J. H. McQuillen, 2100 Arch Street, is the Dean of the Faculty.

The winter session of the Pennsylvania College of Dental Surgery will open at the same time. The Dean of its Faculty is Dr. E. Wildman, 1205 Arch Street.

CORRESPONDENCE.

PENNSYLVANIA LAW AS TO LUNATICS.

To the Editor of the Philadelphia Medical Times:

DEAR SIR:—The provisions of the law of Pennsylvania regulating the admission of insane persons into hospitals for the insane seem to be sufficiently guarded, if properly carried out by those to whom its execution is committed, to secure all the rights of the citizens, and to prevent fraud or injustice. The section reads thus:—"Insane persons may be placed in a hospital for the insane by their legal guardians, or by their relatives or friends in case they have no guardians, but never without the certificate of two or more respectable physicians, after a personal examination made within one week of the date thereof; and this certificate to be duly acknowledged and sworn to or affirmed before some magistrate or judicial officer, who shall certify to the genuineness of the signature and to the respectability of the signers."

If the physicians who are called upon to examine a person alleged to be insane are careful to make that examination as they would in any other medical case in which they felt that their skill and reputation were involved, there can be no likelihood of injustice in any ordinary case. It is true, there are cases where the subject may be involved in doubt and uncertainty; but such only require the greater caution and calmer judgment on the part of the physician.

Let the physician bear in mind one or two plain, practical ideas, and he will rarely fail to arrive at a correct conclusion. Let him remember that insanity is a disease, not some metaphysical entity; to be treated as other diseases are treated, carefully, judiciously, and after a full investigation into the case. Let him be particular to make diligent inquiry into the patient's previous history, character, modes of thought and expression, conduct, and mode of life; ascertain whether any predisposition to insanity or other kindred nervous diseases exists in the family; compare the condition of the person at the time of the examination with his previous character, conduct, and mode of life, so far as these can, after diligent inquiry, be ascertained; examine also, carefully, the physical symptoms, and the condition of the different organs of the body; and, where any uncertainty may exist, repeat the examination once or twice. Never trust entirely to the statements of others, but compare them with his own observation, and use these statements as guides or assistants in the investigation. Never judge of the mental disorder of any one by any imaginary standard, but compare each patient with himself as he may have been at an antecedent date; and as the physician is ordinarily the family physician, or has resided in the community where the patient resides, he can readily ascertain all that need be known in regard to him; or should he be a stranger, he can obtain from the friends, relatives, or neighbors, such information as will materially aid him in coming to a proper conclusion.

Having made the examination with the required care and attention, it is requisite that the certificate be sworn to before some magistrate or judicial officer; and the provisions of the law requiring this certificate to the genuineness of the signatures and the respectability of the signers, would seem to obviate any objection which might be raised as to improper certificates or signatures. It is absolutely necessary that the process for procuring the certificates and the admission of patients into the hospitals for the insane be as plain and free from technicality and expense as possible, and all unnecessary publication of the fact of the mental disorder of any member of a family should be prevented, out of respect to the feelings of the person himself, as well as of the relatives and friends. People dislike to be obliged to submit to much expense or trouble in procuring the certificates, and most have a great dread of publicity; and the law has wisely considered these points in making the mode of procedure as free from expense and technicality as possible.

I am, Sir, yours respectfully,

JOHN CURWEN.

Pennsylvania State Lunatic Hospital,
Harrisburg, October, 1872.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

AT a conversational meeting of the society, held Wednesday, October 9, 1872, at 8 o'clock P.M., Dr. J. G. STETLER, VICE-PRESIDENT, in the chair,

Dr. WILLIAM GOODELL exhibited a vectis which he had used for many years and had found very efficient. It had a broad blade, a wide fenestra, and a very convenient wooden handle provided with a joint, so that it could be folded up into a very small compass. He compared it with the one usually sold in the shops, which is too short, too painful to the grasp, and too slightly curved, to be very serviceable. He considered it a very valuable instrument, but not to be compared to the forceps in the range of its applicability. That there were, however, cases to which the former was better suited,—for instance, in imperfect flexion of the head, as in transverse cranial positions; and in cases in which the forceps cannot be applied in the occipito-mental diameter, such as in mento-posterior positions, and in presentations of the brow or sinciput. It should also be used in those cases of occipito-posterior positions of the vertex in which the forceps cannot be applied to the

sides of the child's head, but only obliquely. He wished to correct one misconception with regard to the utility of this instrument. The vectis had been vaunted as very efficient in converting a face-presentation into one of the vertex, but he had never succeeded in doing this by any other instrument than the hand. The vertex was in this presentation so high up in the pelvis,—in fact, in the cavity of the abdomen,—that the instrument would almost disappear in the genital passages, whilst the intervening vault of the cranium prevented such an adjustment as the admission of the occipital protuberance into the fenestra. The cases in which he applied the vectis most frequently, were those in which the head would not engage; those in which there was delay at the outlet; those in which the pains were insufficient; those in which the head did not press firmly enough upon the perineum; and especially those in which the woman was so nervous and excitable that he knew she would obstinately object to the forceps, or else put off their application until she and her attendants were completely worn out. In such cases he had time and again applied the vectis without the knowledge of the patient or of her friends. He further stated that the vectis might be applied to any part of the head where the indications pointed; but that in the majority of cases the place of application will be the sub-occipital region, and he then aimed to slip the fenestra over the occipital protuberance. Whenever thus adjusted, very forcible traction could be safely made, but it should always be made in the direction of the handle. When the exigencies of the case demand that the blade be passed over the cheek or brow, very little force should be exerted, lest the soft parts of the child should sustain injury. Finally, in view of these facts, it was always most important to make a careful diagnosis of the position of the head, lest the instrument should be unwittingly placed where it could do harm.

Dr. W. M. Welch asked what success Dr. Goodell had met with in forcing with the forceps an anterior rotation of the vertex presenting posteriorly in primiparæ.

Dr. Goodell replied that in these cases he never began to force rotation until the vertex was pushing back the coccyx, or was well out of the outlet and pressing upon the perineum. That the great secret of securing anterior rotation in these cases lay in the application of the forceps to the sides of the child's head, and not to the right brow and left occipital region, as usually made, which tended to induce rotation into the hollow of the sacrum. That by observing this rule, and with the aid of the vectis, he had thus far succeeded in delivering every head but one anteriorly.

Dr. William T. Taylor asked what necessity there was for anterior rotation if the head had been brought down so low as to bulge out the perineum; for was it not then out of the outlet, and ready to be delivered?

To this question Dr. Goodell replied, that in an occipito-posterior position the vertex began to press upon the perineum long before the head was out of the outlet; indeed, it was hardly free from the inferior strait until the very moment of delivery. That an anterior rotation, by changing the mechanism of delivery from flexion to extension, was expedient not only in order to shorten labor, but also to save the perineum from excessive distention and consequent injury.

Dr. R. Burns had always used the forceps and never the vectis, but he was now satisfied that the latter instrument could be made very useful.

Dr. J. S. Eshleman had no experience with the vectis, although he frequently resorted to the use of the forceps. He had been deterred from using the former instrument on account of its faulty form, but he was convinced that the one Dr. Goodell had exhibited was capable of exerting great traction-power.

Mr. Curt W. Meyer, of New York, presented a new continuous galvanic-current battery, and stated that the following are the merits he claims for it over others:

1. Sufficient power for a continuous galvanic current for any case in galvano-therapeutics, provided an adequate number of elements are employed.
2. Durability of the current and of the battery.
3. Its simplified construction, rendering it easily handled and portable.
4. Freedom from acid vapors or corrosive action.

The solution employed is a saturated solution of the chloride of ammonium, with gas coke and zinc in large-sized test-tubes, with a platinum connection at the bottom, which penetrates into the coke and is clamped into the base of the battery, making the positive connection.

Dr. Turnbull thought that Meyer's battery had great advantages in being portable, clean, and free from unpleasant odor in operation; also in producing so little pain or nervous shock. A current of moderate intensity was productive of the best results.

REVIEWS AND BOOK NOTICES.

The Evolution of Life. By Henry C. Chapman, M.D., Member of the Academy of Natural Sciences, Philadelphia. J. B. Lippincott & Co., 1863.

This handsome volume will, no doubt, be cast aside by many timid people whose reverence for the Mosaic account of the creation, as interpreted by the monks of the dark ages, impels them to look with suspicious eyes upon all such researches into the events of prehistoric times. But there is a large, and we are happy to say a constantly increasing, body of thoughtful readers, who, to paraphrase the words of a distinguished living divine, believe that the same old battle fought by the theologians of the seventeenth century with Galileo's astronomy, and by those of the eighteenth with Hugh Miller's geology, is now being waged with Darwin and Spencer's anthropology; and foresee for it a like ill success. Inquirers of this enlightened class hold a faith in Omnipotence too profound and steadfast to admit the fear that any mere human, and therefore finite, search after truth, can shake His throne in the Infinite. They possess a grasp of intellect broad enough to perceive that, even should science demonstrate that the result of the primeval fiat was the "derivative creation" of evolution instead of the "special creation" of rabbinical and monkish tradition, our grand argument for the wisdom and goodness of the Almighty, from the countless evidences of design in the structure and adaptations of his creatures, would be only strengthened and reinforced. Among such unprejudiced students of nature we feel sure this book will be warmly welcomed as a clear, perspicuous compend of the latest investigations and conclusions in regard to the evolution of life upon our planet. The author traces the development of organized beings from the lowest of the protozoa, the Monera of Häckel, through the vegetal amœbæ on one hand, to the giants of the vegetable kingdom; and from the amœbæ on the other, up a gradual ascent to man, the highest, that is, the most specialized, type of the vertebrates. His endeavor has been "to place before the reader in as popular a manner as possible, the most important generalizations in reference to the structure of plants and animals, their petrified remains and mode of development; and to point out how the theory of the evolution of life follows from the facts of anatomy, geology, and embryology." The

work is well printed on fine paper, and profusely illustrated with figures and charts, which largely contribute to the value of many rather brief descriptions in the text. It is comparatively free from typographical errors and those of inadvertence, although (without desiring to be hypercritical) we must confess to some surprise at finding that Dr. Chapman informs his readers, on page 36, that trichiniasis is "a disease resembling typhoid fever and acute rheumatism," albeit some symptoms are analogous in these complaints. An elaborate map, exhibiting a hypothetical sketch of the origin and diffusion of mankind, is prefixed to the volume, and possesses great interest from an ethnological point of view.

THE PRESIDENT'S ADDRESS BEFORE THE SOUTH CAROLINA MEDICAL ASSOCIATION, AT THE MEETING HELD IN COLUMBIA, April, 1872.

Dr. Porcher's address consists principally of remarks upon the treatment of yellow fever, and the great success attendant upon his efforts.

After dissenting in very strong terms from Dr. Thomas King Chambers's ideas as expressed in "Restorative Medicine," and asserting that it is *not "by endowing or enriching the body" that cures are effected in this disease*, he bows in *action* to the same idea of Dr. Chambers by giving a large dose of quinia at the start, and following up his treatment by various saline remedies, which are calculated to prevent waste and oxidation of the tissues. With the large dose of quinia (gr. xxiv), he gives also a large dose of calomel (gr. xx), and terms his treatment "*spoliative*." . . . A few lines farther on, he virtually acknowledges that his medication is not spoliative, as "*purgatives are on no account* to be persevered in."

Our author does not seem to have yellow fever as an entity very well defined in his own mind, for we find him expressing himself in this peculiar manner: "*Yellow fever differs from paludal, malarial fevers in the marked absence of decided periodicity; and in all its phenomena and its manifestations it is nearest to the so-called bilious-remittent fever of hot countries. But it is much more intense and violent; albumen escapes much oftener from the congested kidneys, and it is characterized by the frequent occurrence of black vomit. In a fever like this of one paroxysm.*" . . . A few lines farther on, he speaks of the "*congested and engorged liver*" of yellow fever.

Now, we as critics would say that Dr. Francis Peyre Porcher's treatment of yellow fever is as nearly *restorative* as he can make it, and although he does not give "*cod-liver oil, beef-tea, or even stimulants*," he still fulfils Dr. Chambers's requirements in using quinia, calomel, saline purgatives, and diuretics and cold applications to the surface; for in these he employs the means to stop waste, which accomplishes the same end by a better way than the supply of new materials, which could not be assimilated.

Again, we must say that on careful examination we do not see any close resemblance between yellow fever and bilious-remittent fever, nor do we think that albuminuria ever occurs in the latter, while the congested and engorged liver is peculiar to it, and the liver of yellow fever is so notably pale and anæmic that for many years it was considered to have undergone rapid fatty degeneration. It is also a notable fact that its secretion is stopped, no bile being present in the matters vomited after the stomach and duodenum have been emptied in the early stages of that process.

Lastly, we would say that it does not sound well to speak at the present time of disgorging the liver by means of a mercurial purgative.

Aside from the faults to which we have alluded, the address is pleasing and instructive, and filled with good advice and the results of watchful experience, and if it were not for its somewhat pretentious and faulty physiology and verbal pyrotechnics, we would have nothing but praise to award.

THE PRINCIPLES AND PRACTICE OF SURGERY. By FRANK HASTINGS HAMILTON, A.M., M.D., LL.D., Professor of Surgery in Bellevue Hospital Medical College, etc. etc. Illustrated with 467 Engravings on Wood. 8vo, pp. 943. New York, William Wood & Co., 1872.

We do not want to damn this handsome book with faint praise, but we cannot think it will take such a place among treatises on general surgery as its author's work on "Fractures and Dislocations" took among works on that branch of the subject. Dr. Hamilton is an excellent surgeon, of wide experience and sound views, and we believe he is a popular and interesting lecturer; and yet, in our opinion, his present effort will hardly supplant other text-books of like scope, except with his own classes.

Our space does not admit of an analytical review, especially as the plan adopted by our author has no marked peculiarity: we can, therefore, only mention a few points in proof of the opinion above expressed. While only forty pages are devoted to the eye, and but thirty to the whole subject of venereal diseases, a chapter is introduced, of only eight pages indeed, on the anatomy, development, and surgery of the teeth,—a topic to which justice cannot be done within such narrow limits. The chapter on "Tumors" is unsatisfactory, mainly in the matter of the diagnosis. The directions for the ligation of special arteries are meagre in the extreme. Only one operation for hare-lip is described, and that the old one, by straight incisions.

We will not dwell on minor matters, such as misspelt names ("Ashurst" for "Ashhurst," "McLeod" for "Macleod"); but "tolliter effectus" is not Latin, nor is "processus dentata."

Let us be distinctly understood. Our criticism is not so much that we find faults, as that we do not find superiority. We do not think the book does its able author justice.

BOOKS AND PAMPHLETS RECEIVED.

A Manual of the Diseases of the Eye. By C. Macnamara, Surgeon to the Chandnie, and the Ophthalmic Hospital, Calcutta, etc. Second Edition. 16mo, pp. 620. Philadelphia, Lindsay & Blakiston, 1872.

A Year of Experiment in Electro-Therapeutics, etc. By George M. Beard, M.D., and A. D. Rockwell, M.D. Reprinted from *The American Practitioner*, August, 1872. 8vo, pp. 18. Louisville, John Martin & Co., 1872.

Medico-Legal Science. By Thaddeus M. Stevens, M.D. Reprinted from the Transactions of the Indiana State Medical Association. Indianapolis, 1872.

Normal Ovariotomy. By Robert Battey, M.D., Rome, Georgia. Reprint from the *Atlanta Medical and Surgical Journal*, September, 1872. 8vo, pp. 18.

On the Physiology of Syphilitic Infection, as applied to the Successive Manifestations of Disease. By Fessenden N. Otis, M.D., etc. Reprinted from the *N. Y. Medical Journal*, July, 1872. 8vo, pp. 28.

Transactions of the American Medical Association, vol. xxiii. 8vo, pp. 757 (with an Appendix on the Nomenclature of Diseases, pp. 94). Philadelphia, 1872.

GLEANINGS FROM OUR EXCHANGES.

Symptoms produced by the Presence of a Needle in the Thoracic Parietes (*Le Mouvement Médical*, August 10, 1872).—M. Pozzi reported to the Société Anatomique, on the 2d of August, the case of a girl, who, at 13 years of age, had a needle thrust into the fifth intercostal space on the left side. From this time, hyperæsthesia of the skin of this region, with pains in the arm and shoulder, prevented her lifting the left arm, and hindered other movements. At 17 years of age, an attempt at extraction by manipulation was followed by irritation and swelling of the skin. At the end of nine years, the pains persisting, the girl came to the clinical hospital to get the foreign body extracted, feeling it beneath the skin. M. Polaillon made an incision, and drew out a part only of the needle, which broke off, having become oxidized. M. Pozzi thought it better in such cases to dissect out the offending body.

Curious Malformation.—M. P. Budin (*Le Mouvement Médical*, August 17, 1872) recently brought before the Société Anatomique a heart, from a case in which the skull and genital organs were likewise malformed.

The organ, in the thoracic cavity, looked larger than normal just after birth. There was but one artery, coming off from the base of the ventricles, and representing at once the aorta and pulmonary artery; this vessel, arising by two branches, one from each ventricle, described a curve like that of the aortic arch. It presented three sigmoid valves, and gave off the two coronary arteries, two large branches, going one to the right and one to the left lung, the innominate, left carotid, and left subclavian, and then descended along the vertebral column in the usual way.

There was, therefore, no ductus arteriosus in this child. The right auricle was very large, the left very small, but elongated, as if contracted upon itself. The inter-auricular septum was also absent, being merely represented by two very thin filaments, extending from the anterior to the posterior auricular wall. There was, therefore, no foramen of Botal, and, as the left auricle was scarcely at all developed, the right auricle seemed to communicate with the left almost as freely as with the right ventricle. The two auriculo-ventricular valves were otherwise normal.

As to the vessels carrying blood to the auricles, there were found the venæ cavæ, superior and inferior, and a coronary vein opening into the right one; but there was no pulmonary vein, the blood coming from the lungs flowing into the vena cava superior.

To sum up, there was in this heart a very large right auricle opening into both ventricles,—a communication between the two ventricular cavities,—a single arterial trunk representing the aorta and pulmonary artery,—no pulmonary veins,—no foramen of Botal,—no ductus arteriosus.

Experiments on the Production of Crepitant Rales.—MM. Cornil and Grancher (*Le Mouvement Médical*, August 10, 1872) reported to the Société de Biologie, at its meeting on July 20, that they had made some experiments on this point, as follows: Having laid open the trachea of a cadaver, and introduced a tube by which to make artificial respiration, they ausculted the lung, first through the thoracic walls, and afterwards, the lung being laid bare, with the stethoscope. In the former case they heard a sound analogous to the vesicular murmur, but slightly exaggerated; in the latter they heard a sound like the crepitant râle of pneumonia, although the lung experimented on was a healthy one.

This experiment, repeated under various conditions, gave the same results: thus, in the body of a man in whom during life crepitant râles had been heard, and who was believed to have had pneumonia, the investigators heard, proceeding as above described, crepitant râles, and on examination the lungs showed foci of pulmonary apoplexy. The same happened in a case of pneumonia of the apex. The same also, when, having injected tallow into a part of the lung, they ausculted when the tallow had solidified.

MM. Cornil and Grancher have drawn the following conclusions from this first series of experiments:

1. The phenomena of auscultation can be reproduced in the cadaver by inflating the lungs through the air-passages. 2. The crepitant râle is not produced in the hepatized portion of lung. 3. It occurs in the alveoli adjoining the indurated mass. 4. The crepitant râle occurring in puffs in inspiration is identical with that which is obtained on listening directly to the normal lung. 5. One can obtain it artificially by transforming a portion of the lung into a hard mass, impermeable by air, as, for instance, by the injection of tallow. The same result is arrived at by the interposition of a resistant body between the lobes, such as a piece of wood, by a cord placed on the tip of a lobe, etc. 6. The hepatized part transmits the crepitant râle readily, in spite of a layer of false membrane or even of liquid.

These researches were criticised by several other members. M. Lépine reminded the Society that M. Petrequin had previously experimented in auscultation on the dead body.

On the Pulvis Glycyrrhizæ Compositus, a Laxative Preparation of the Prussian Pharmacopœia.—David Page, M.B., of Kirby-Lonsdale, England, says:

"For the treatment of simple constipation resulting from atony of the bowel, the compound liquorice powder is admirably adapted. Whether in simple uncomplicated torpor of the intestines, or in constipation accompanying temporary gastric disorder, the powder, alone or as an auxiliary to appropriate remedies, is preferable to other preparations of its class. In the former, our object is rather to call into play the peristaltic action of the intestine, than to deplete by serous transudation from its walls, and, in the latter especially, no prudent practitioner would run the risk of aggravating the disordered stomach by the exhibition of purgatives possessed of irritant or drastic properties. The compound liquorice powder is composed of the following constituents, so prepared as to form when incorporated an almost impalpable powder:

℞ Senna leaves, ℥vj;
Liquorice root, ℥vj;
Fennel seeds, ℥iij;
Sulphur, ℥iij;
Refined sugar, ℥xviij.

"This formula is given in the Pharmacopœia Borussica.

"The active ingredients are sulphur and senna. The action of the former, when administered alone, is frequently accompanied by tormina, and its continued use is apt to cause derangement of the mucous membrane of the upper intestine. The physiological action of sulphur appears to be upon the muscular coat, and less upon the mucous surface, while senna is a more active purgative, more apt to excite tormina, and acts more upon the mucous than the muscular coat. By the aromatic and stimulant properties of the fennel, and the demulcent action of the liquorice, itself a mild laxative, the effects of the more active constituents are judiciously modified.

"The usual dose is a small teaspoonful at bedtime in water, with which it is easily mixable, forming an agreeable draught. Children, to whom Gregory's powder is

a terror, readily take it with a belief that it is a sweetmeat.

"That the action of the powder is not to produce catharsis with serous transudation is proved by the motions, which are usually well formed and soft."

THE MECCA PILGRIMS AND THE CHOLERA (*Wiener Mediz. Presse*, July 14, 1872).—In the present year the pilgrimage did not occur in the summer months, which fact alone was favorable to the health of the masses assembled in the East. The great precautions, however, exercised by the English, Dutch, and Egyptian governments, in regard to the transportation and hygiene of the pilgrims, prevented the appearance of cholera. Dr. Pasquier, health officer at Dschidda, in his report, states that the number of pilgrims present at the festival on Mount Arisat was estimated to be about 110,000. 30,058 of these arrived at Dschidda in thirty-seven steam-vessels, thirteen three-masted sailing-ships, and by means of small Arabian barges; 10,531 came from the Indian Ocean, viz.: 6205 Malays, hailing from Singapore and Java; 4326 from the continent of India, hailing from Bombay and Calcutta; 2040 from the Persian Gulf; 2126 from the Arabian, and 2507 from the African, coast of the Red Sea; 11,516 came by the way of the Suez Canal; 10,000 from Algiers and Tunis; 1200 from Caucasus, and 316 Egyptians. About 80,000 came with caravans from Egypt, Syria, and chiefly from Medschid and other places in Central Arabia. According to Dr. Kadri Effendi, health officer at Mecca, such a concourse of Bedouins has rarely, if ever, occurred. Dr. Pasquier congratulates himself that no case of cholera occurred upon the pilgrims' ships, and that no trace of an epidemic showed itself during the festival, which fact was favored by good weather and mild temperature. Dr. Aref Bey, Vice-President of the Chief Sanitary Commission in Constantinople, was present in Mecca during the entire festival, in order to carry out all the sanitary regulations adopted for the occasion. In this work he was nobly sustained by Drs. Server Bey, Raef Effendi, and Kadri Effendi. We need not dwell upon the great obligations conferred upon all Europe by the strenuous endeavors of these men to prevent an outbreak of the cholera in the ranks of the pilgrims.

"NEURALGIA OF THE TESTICLE" (*Wiener Mediz. Presse*, July 28, 1872).—Dr. I. Lazarus, of Czernowitz, several years ago wrote an article on spermatorrhœa, in which he stated that sometimes neuralgia of the testicle was an attendant upon spermatorrhœa. Since then he has had ample opportunities for observing this fact in private and hospital practice.

In most cases, only a portion of the testicle is implicated, and this is usually the epididymis, in which the head and the initial portion of the vas deferens are involved.

The left testicle is more apt to be affected than the right. Anatomical changes have never been observed by the author, although the painful affection may have continued for many years.

Some observers have described a swelling at the junction of the epididymis and vas deferens, and a slight dilation of the blood-vessels at that point, as changes consequent upon the neuralgic affection. Neuralgia of the testicle has, however, special causes. In a very large number of cases, sexual abstinence is the cause of intense neuralgia of the epididymis. This predisposing cause is not the lot of those only who observe voluntary celibacy, but is very much more frequently brought on by abstinence caused by weakened sexual power or temporary impotency. In such cases, if no involuntary emissions occur to relieve the congested vessels and distended seminal canals, neuralgia of the testicle shows a special tendency to develop itself.

Such a condition of the nerves is instantly relieved by a partial act of coitus or an imperfect nocturnal emission.

In many cases the neuralgia of the testicle is caused by dyspepsia occurring in nervous, badly-nourished individuals, and in these cases shows no disposition to disappear. Protracted inflammation of the epididymis, accompanied by induration; strong injections in gonorrhœa; and the passage of renal calculi through the ureters, may be causes of protracted neuralgic affection of the testicle.

A very remarkable instance of neuralgia of the testicle occurring in a man who had fallen from a scaffold, and who suffered from paralysis of the inferior extremities, is given by the author. The reason assigned for the neuralgia, as well as for the paralysis, was a central lesion in the nervous apparatus.

Neuralgia of the testicle has two other causes in varicocele and spermatorrhœa. The first symptoms are a painful sensibility in the head of the epididymis, which continues without intermission for some time, closely resembling the symptoms of inflammation of the epididymis. This, however, is never attended by any swelling or redness, and in a few days gives way to a paroxysmal and boring pain. In such cases, motion and cold are provocative of intense pain, while heat and perspiration greatly relieve the suffering. Erections may provoke so much pain in the testicle as to cause nausea and vomiting.

The treatment consists in the removal of impotence and of intercurrent inflammations, as well as of spermatorrhœa and dyspepsia. When the discontinuance of continence is impossible, the author has found great benefit from the use of sulphate of zinc, internally and locally, by hypodermic injection.

In the former instance,—

℞ Zinci sulphat., gr. iij;
Aq. destillat., f℥v;
" laurocerasi, f℥j;
Syr. aurant. cort., f℥ss.

S.—Dessertspoonful three times daily.

For hypodermic injection,—

℞ Zinci sulph., gr. j;
Aq. destillat., f℥iij–iv.

S.—Inject a half-syringeful into the posterior wall of the epididymis, once daily.

IDIOPATHIC HYDROPHOBIA.—The *Chicago Medical Examiner* of July 15 contains the report of a case of hydrophobia, in which there was no known evidence of inoculation or poisoning. The patient was admitted to Mercy Hospital, January 24, 1872, at 12 M., and died the following morning, at seven o'clock. He was aged twenty-eight years, of medium size, rather robust in appearance, and had been employed as an engineer. For two nights previous to his attack he had been at parties nearly all the nights, engaged in dancing and the excitement usual on such occasions, and yet attending to his work during the day. Neither himself nor friends had any recollection of his having ever been bitten by dog or cat, or any animal that could have been rabid. He had formerly practised masturbation freely. About ten days previously he had been vaccinated, which had produced a large sore on the arm, still in active progress at the time of his admission. The following are the remarks upon the case by Prof. N. S. Davis:

"The patient was seen by two or three intelligent physicians before he was brought to the hospital, and by several members of our college faculty, including Professor Andrews, while here, and all agree that the symptoms throughout were well-marked hydrophobia. It is reasonably certain, however, that they were not induced by the bite of any rabid animal. Was there some peculiar animal poison absorbed from the large

and unhealthy vaccine sore on his arm? Or did the excitement of dancing-parties at night and work during the day, co-operating with the disturbing influence of the vaccine virus, establish the irritation of the nervous centres on which the violent symptoms depended? Can hydrophobia be induced without the agency of a specific virus derived from a rabid animal? These are interesting questions suggested by the case under consideration, but which are not easily answered. Some have claimed that hydrophobia is simply a peculiar affection of the cerebro-spinal nervous centres, and have expressed doubts about the existence of any such poison as rabies. The facts pointing to the existence and destructive influence of such a poison are too numerous, however, to admit of reasonable doubt. And yet we are compelled to admit that cases presenting all the phenomena of hydrophobia have occurred that could not be traced to the introduction of any such poison. Such is, indeed, the case before us."

A Case of Chronic Polyuria (*Wiener Mediz. Presse*, August 18, 1872).—Prof. Loebel, of Vienna, gives the following history of a case of polyuria in a lad fifteen years old, who has been obliged for some time past to "urinate very frequently." He was admitted to the ward under the charge of Prof. Loebel, and during his sojourn there, nothing abnormal, save the excessive urination, was observed. On the day of his reception, he passed 9000 cubic cm. of urine.

The largest amount passed on any one day was 16,000 cubic cm.

The usual quantity amounted to 10,000 to 12,000 cubic cm. The color of the urine was very pale, and the sp. gr. was 1.002, or about that of ordinary spring-water. Once it reached 1.006, and once it amounted to 1.007. The picrometer was frequently used, since the urinometer of Haller is not applicable to such cases of alteration in the specific gravity.

The urinometer sank below 0, which was quite unexpected, since the urine, though very dilute, contained all the constituents of normal urine, and, therefore, should have had a specific gravity greater than that of distilled water. The reaction was usually acid, though once it was neutral. The amount of urea was found to be relatively decreased, but the entire amount was found to be normal, viz., 24–30 gr. per diem.

The boy's appetite was excellent, and his nutrition good. His weight increased while in the hospital.

All treatment of this case was fruitless.

For several days in succession, three to four hours daily, the boy was packed in warm-water cloths, but the skin remained dry, and the amount of urine showed no changes. Then opium was given, $\frac{1}{4}$ gr. daily; subsequently this was increased to $\frac{3}{4}$ gr. daily, without the slightest effect upon the diuresis. This treatment was discontinued, since the patient lost his appetite and suffered from headache.

Fowler's solution, ten drops daily, succeeded the foregoing remedies, but had no effect upon the amount of urine excreted. The patient suffered at one time from a severe diarrhœa, lasting several days, during which attack the amount of urine was not in the least diminished.

The observation of this case lasted from January 6 to April 10, at which time the patient left the hospital.

Two Cases of Cysticercus cellulosæ in the Human Eye (Dr. J. Hirschberg, of Berlin, *Virchow's Archives*, vol. liv. Parts 1 and 2).—In one case the worm was in the deep portion of the vitreous humor, in the other it was in the anterior chamber of the eye. After the worm had been detected by means of the ophthalmoscope, an incision was made in the sclerotic, as for the extraction of a cataract; then iridectomy was performed, and the crystalline lens was slowly and completely extracted while the patient was still in the horizontal position.

The upright position was then assumed, and a small hook was inserted into the vitreous body, and the entozoon dragged forward till it was visible to the unaided eye. By causing the patient to bend forward, the edges of the sclerotic wound were made to gape, and the worm slipped out upon the table. The wound healed by first intention, and the form of the eyeball has been completely retained.

The second case is important, since it demonstrates that the position of the parasite may be mistaken for one in the lamellæ of the cornea, when in reality it is in the anterior chamber of the eye. Both parasite and patient were very young: the former about twelve weeks, and the latter two years. An incision was made in the inferior portion of the cornea, and the cysticercus extracted head-foremost.

Gentle pressure and instillation of atropine caused the wound to heal in two days. The eye showed no irritability, and the sight remains to-day perfectly normal.

Feeding by the Rectum.—With reference to the use of the pancreas of animals in the formation of nutrient enemata, a further communication on the subject, by Dr. Leube, appears in the *Centralblatt für Medizin. Wissenschaft.* (July 20). He says that the plan of obtaining the pancreas in the ordinary way from the butcher succeeds very well in the autumn and winter. In the warmth of summer, however, the gland very soon begins to undergo decomposition, and in consequence loses its digestive power, and becomes irritating to the intestine, producing rapid expulsion of the material injected. These mishaps may be easily avoided by making a glycerin extract of the pancreas. This extract is quite equal in digestive power to the fresh pancreas, and will remain good for several weeks. Dr. Merkel, of Nuremberg, has made several trials of this modification, especially in a case of iodine-poisoning; and the results have been equally favorable with those following the use of the pancreas itself. He describes the following as the best mode of making the pancreatic injection. The pancreas of a bullock (which is sufficient for three enemata) is finely chopped, and rubbed with 250 grammes of glycerin; and to each third of this, when about to be used, are added from 120 to 150 grammes of finely-divided meat. This mass is digested in the bowel as completely as the meat and pancreas mixture already described. It is important that the mixture of pancreas and glycerin with meat should be injected into the rectum as soon as it is made; for, if it be allowed to stand, the meat swells up, and the injection is thereby rendered difficult.

Tea Threatened with Competition.—A foreign journal states that tea and coffee are threatened with a Brazilian rival called "guarana," which consists of a tree known to botanists as the *Paullina sorbilis*, which is very abundant. The tree produces a fruit about the size of a walnut, containing five or six seeds, which are roasted, mixed with water, and dried. Before being used they require grinding, when they fall into a kind of powder. The active principle is an alkaloid identical with that found in tea or coffee, but there is twice as much of it as there is in tea. Guarana is now largely sold by druggists in the form of powder, which is a rapid specific for sick-headache. Indeed, we know of nothing equal to it in efficacy when taken at the beginning of an attack; but as to its being a competitor to the old-fashioned tea, we imagine that it will take a long time yet to find anything like a substitute.

Guarana in Sick-Headache (*Dublin Journal of Med. Science*, August, 1872).—Dr. Wilks (*Brit. Med.*

Journ., April 20, 1872) calls attention to the use of this drug as so encouraging in the treatment of sick-headache, and asks for further information. His attention was called to it about two years since, by Mr. Helmcken, of British Columbia, and more recently by Dr. Wood, of Montreal.

Guarana, or Paullinia, is a paste prepared from the seeds of a Brazilian plant, *Paullinia sorbilis*, in a manner somewhat similar to chocolate. It possesses a peculiar odor, a bitter astringent taste, and contains no inconsiderable amount of caffein. A full account of its properties and uses will be found in Guibert's *Nouveaux Médicaments*, second edit., p. 17.

Bromide of Potassium in Traumatic Tetanus.—Dr. Cephas L. Bard reports, in the *Western Lancet* for July, 1872, a case of traumatic tetanus in a girl 15 years of age, successfully treated by the removal of a foreign body, a piece of bone, from the sole of the foot, and by bromide of potassium given in thirty-grain doses every hour. Four doses produced a marked improvement, and complete recovery ensued.

MISCELLANY.

Poisoning by Cyanide of Potassium taken in Mistake for Medicine.—An English paper says, "On Tuesday, June 25, an inquest was held at the Queen's Head, Chelsea, respecting the death of Mr. John King. Deceased, who was under medical treatment, had his medicine-bottle in the bar, and on taking a dose became suddenly faint and died in two hours. It was then found that some cyanide of potassium had been put into an empty medicine-bottle, and the label, 'To be taken every four hours,' left upon it. Edward Jennings, potman to deceased, said he had been in the habit of obtaining two-pennyworth of cyanide of potassium about once a month, from Mr. Pasmore, chemist, for Mr. Edward King, who used it for cleaning the metal-work of the refrigerator in the bar. The mixture, up till Tuesday in the previous week, always used to be made and kept in a very old dirty bottle, but the regular bottle was then broken. Mr. Edward King, being asked by the coronor how the cyanide of potassium came into the medicine-bottle, said, 'I put it into that when the other bottle was broken last week. It was a fresh lot that I made up. I took it out of the locker about a quarter after six in the morning, and put it on the shelf to clean the refrigerator with, when it got cool after breakfast. My father must have come in and put his medicine-bottle by the side of that, and then taken up the poison-bottle in a mistake, but he always knew that we used the cyanide of potassium three times a week, and always on a Saturday.' The jury returned a verdict of accidental death."

[Such accidents can always occur anywhere, if poisons are sold without unmistakable warning, either in the character of the bottle or in the label, of their nature. Precautions of this kind ought to be prescribed by law, and a suitable penalty duly enforced for their neglect.—Ed.]

Doctors' Bills.—Dr. St. John Roosa, in his Anniversary Address to the Alumni of the Medical Department of the University of the City of New York, tells the following good stories:

"There are several anecdotes floating about our city, relative to the subject of fees, which may or may not be true, but which, after all, illustrate the paternal relations existing between tried and trusted medical advisers and their patients, such as obtained in the times when people did not change their physicians as readily as they would a garment.

"It is said that the late Dr. F., for so many years the chief attraction of many circles of our society, once sent in his annual bill, which was about as large as usual, for medical services rendered the family of one of his most valued friends, when, in point of fact, he had not been in the house professionally during the entire year. The bill was paid as usual, but when the head of the family met Dr. F., he remarked, 'Doctor, I got your bill the other day, but I don't remember that any of us have been sick this year.' 'Very likely not,' answered the bluff man of science; 'but I stopped several times at the area gate, and inquired of the servants how you all were.' For that year, at least, the good man was paid on the Chinese principle.

"The late Dr. S., who was for many years one of the prominent medical men in New York, is said to have once sent in a bill for three hundred and forty-two dollars and ninety-two cents, or some similarly odd sum. This curious bill was also paid, but when the patient met his physician, he inquired, 'How, doctor, did you ever get that odd ninety-two cents in my bill?' 'Oh,' said the doctor, 'that is easily explained: my grocer's bill was for just that amount, and I knew of no one who would so cheerfully pay it as yourself, and so I made one pay the other.'"

The Physiology of Tears.—Dr. Daniel Tuke, who has been investigating the physiology of tears, thinks we must confess with Brodie that we cannot answer the simple question why or how does a certain state of mind augment the secretion of the gland? Gratiolet inferred, partly from his own sensations, that tears result from reflex irradiations which traverse the fifth pair of nerves; that is to say, the emotion of joy or sorrow acts first upon the heart or other viscera through motor channels, and is then reflected upon the sensory nerve supplying the gland. But this track does not seem anatomically or physiologically justifiable. Much more likely it is that the influence is transmitted directly either to the capillaries of the gland by actively dilating motor nerves, or through nerves to the lachrymal cells themselves, directly exciting their functional activity. We might apply to the lachrymal gland, Sinitzin's conclusions in regard to the trophic influence of the cervical sympathetic and the fifth pair on the eyeball; but some difficulties present themselves, into which, however, we cannot now enter. The *quality* of the secretion seems to be altered by powerful emotions; the saline ingredients being increased, causing "a strong brine." Lastly, the secretion may be checked. The intensity of the feeling or the suddenness of the sorrow is the

most frequently witnessed cause. Daily observation shows that the first result of distressing intelligence is the negative one,—inability to cry. See, too, what the want of a handkerchief may do. "I went," says Hunter, "to see Mrs. Siddons acting. I had a full conviction that I should be very much affected; but, unfortunately, I had not put a handkerchief in my pocket; and the distress I was in for the want of that requisite when one is crying, and a kind of fear I should cry, stopped up every tear, and I was even ashamed I did not, nor could not, cry."—(*Posthumous Papers*, vol. i. p. 257.)

The Oldest Man in the World.—Jacob Fournhis, who was probably the oldest man in the world, died recently at Kansas City. He was about one hundred and thirty-eight years old, and remembered distinctly the taking of Quebec by Wolfe, in 1759. He followed the occupation of a hunter for fifty years, and retired about thirty years ago from active work.

A Well-Merited Recompense.—Under this heading the *Mouvement Médical* of September 14 says, "Our readers are well acquainted with the features of *l'affaire Dolbeau*. They know also of the curious inquiry which was made and which we have published;—the share taken by M. Dolbeau in the arresting of one of his hospital-patients is unfortunately beyond a doubt. They know also the appreciation of all the circumstances by M. Béclard." (M. B. was vociferously applauded for some remarks on professional honor, made by him to the students with tacit reference to M. Dolbeau's course.) "M. Dolbeau has now received the reward of his conduct. In spite of all protestations, too well justified, the administration has intrusted M. D. with the inspection of the preparatory medical schools, and with presiding over the examinations for the degree of *officier de santé*. After all that has passed, this official action is somewhat surprising. We shall see how the matter will end."

Evidently, lively scenes are anticipated.

The London *Lancet* says, "The subject of tattooing has acquired a temporary interest from the incidents of the Tichborne trial. The practice is of great antiquity, and, as is well known, is adopted by many savage tribes. The mode in which it is performed, however, varies considerably. Thus, while the Australian makes deep incisions, and fills in the wound with clay and other substances, so that an elevated scar is left, the New Zealander scarifies himself with an instrument resembling a curry-comb, constructed of shark's teeth, which is slowly driven through the skin by repeated blows of a mallet, the wounds being filled with the resin of the Kauri pine and a kind of red earth. With the lower classes, and, it would appear, with youths of the upper, in this and neighboring countries, the punctures are made with a needle; gunpowder, indigo, or vermilion being subsequently rubbed in. By wild tribes, tattooing is unquestionably used as a substitute for clothing, and Prichard, as quoted by Wood in his 'History of Man,' observes that European eyes become so accustomed to the tattoo that they are rather shocked at its absence; and so completely is this feeling realized by the Samoan natives, that chiefs who have arrived at middle age frequently undergo the process of tattooing a second time, in order to renew the patterns, as they become dim and uncertain with the lapse of years; for, though indelible, the tattoo does fade in time. Tattooing, so common among our sailors and soldiers, is probably based upon a desire that their bodies may be recognized in case of death in action or by drowning; though it is, perhaps, often done merely from imitation, or to while away the time. The durability of the marks will obviously depend on the depth of the incisions or punctures, and the nature of the substance rubbed in. When the incision or puncture has fairly penetrated the cutis, and the material is insoluble, it will certainly be permanent. Virchow, in his 'Cellular Pathology,' gives an illustration of the appearance presented by glands of a tattooed soldier fifty years after the operation."

Entozoon of Fish.—At a meeting of the Medico-Chirurgical Society of Edinburgh, Dr. Handyside read an account of *Filaria Piscium* within the muscles of a salmon. This entozoon, not uncommon in the branchiæ and in the intestinal canal of fish, is not hitherto described as occurring free in the muscles. Thirty-four were found alive and wriggling in the muscular substance of a small slice of a fish, the rest of which had been sold to the public. Dr. Handyside gave a careful description of the appearance and general anatomy of these entozoa, and detailed some experiments which gave the reassuring results that a very slight increase of temperature over 98° was soon fatal, and even the removal of the worms from the muscles to water was sufficient sooner or later to kill them; so that little danger seemed to exist of these retaining their vitality in the human stomach. Dr. Rutherford Haldane suggested that in the event of another example of a fish infested by these parasites being obtained, experiments should be made by feeding cats or other animals with the flesh and watching the results.

Deaths from Lightning.—During the months of July and August, 1872, *thirty-six* persons were killed by lightning in the Northern and Eastern States of our country. During the ten days succeeding July 3, no less than fifteen persons were killed by this means in these States. A writer in *Appletons' Journal*, September 9, 1872, truthfully remarks that "a succession of three railroad accidents, in each of which five persons had been killed, would have horrified the community; but these fifteen deaths by lightning seem to have attracted very little attention. From the report of Boudin, presented to the Academy of Sciences in 1864, we learn that in France, during twenty-nine years, an average of seventy-seven persons lost their lives, and 232 were injured, per annum. In Mecklenburg it was found that one person was killed out of every 247,200 inhabitants."

Coagula from the Ureter (*Column for the Curious: Brit. Med. Journ.*, July 2, 1872).—I do not recollect any reference being made in a modern work to this

curious result of renal hemorrhage. A short time ago, I was shown coagula voided from the bladder, and evidently moulded in the ureter, which bore a striking resemblance to small specimens of ascaris lumbricoides. The following is from Boerhaave's Institutes, English edition, 1746, vol. vi.: "When blood extravasated into the pelvis of the kidney congeals into grumes, as they pass from thence into the ureter and bladder, an obstruction is by this means generally formed, either in the ureter or urethra. I have myself seen blood concreted so as to put on the shape of a worm in the urethra, from whence we were obliged to extract it by a hook. Of this disorder perished that considerable anatomist Drelincourt."

According to a statement made at the Statistical Congress, held this year in St. Petersburg, the total number of deaths from smallpox in the German army during the recent Franco-German war was two hundred and sixty-three. This small mortality is attributed to the system of compulsory revaccination, which every man who enters the army must undergo. On the other hand, in the French army, where revaccination is not compulsory, the number of deaths, as stated by a French authority, was 23,469. This terrible difference, says the *Wiener Medizin. Wochenschr.*, must puzzle the greatest opponents of vaccination.

Receipt against Cholera.—On the occasion of a great epidemic—probably one of cholera—which reigned in the seventeenth century, the following quatrain had much vogue. *La France Médicale*, which has disinterred it, thinks it still applicable.

"Tiens tes pattes en chaud,
Tiens vides tes boyaux,
Ne vois pas Marguerite,
Au cholera tu seras quitte."

According to the *New York Medical Record*, the New Sydenham Society have purchased the copyright of Dr. Mayne's Dictionary of Medico-scientific Terms, which is to be made the basis for a new work of this description. A small staff of editors will be appointed to undertake the task of revision and supplement, and the profession at large is invited to co-operate in furnishing suggestions, emendations, or additions towards the completion of the work.

Death of the English Medical Director-General.—Sir Andrew Smith, Director-General of the English Army Medical Department, died recently, at the age of seventy-five. He was a Scotchman, spent a great portion of his life in South Africa, and, among books on that colony, his "Illustrations of the Zoology of Southern Africa" is well known.

British Medical Association.—The next meeting of this Association will be held at Bradford, September, 1873. Belfast is the place chosen for 1874. Dr. James Prescott Joule is the President elect.

The tenth annual meeting of the British Pharmaceutical Conference will also be held in Bradford next year.

New York Physicians.—According to the New York *Medical Register* for 1872, there are in New York City, Brooklyn, and vicinity, seventeen hundred and forty-eight practising physicians in good standing, being a gain of one hundred and ninety-five over the year 1871.

University of Zurich.—The Professors of this University are unanimously opposed to the admission of any more female students, and intend to apply to the Federal Government of Switzerland for a bill restricting the rights of studentship to males.

A Nut for Vital Statisticians.—It is stated as a curious fact, on the excellent authority of our contemporary the *Edinburgh Medical Journal*, that during the strike of the scavengers in Edinburgh the mortality of that city fell to 15 per 1000.

Among the candidates who lately passed the anatomical examination in the University of Berlin with special approbation, was a Japanese student named Sasumi Satoo, son of the private physician of the Mikado.

Mt. Sinai Hospital, N.Y.—This new and commodious hospital, on Lexington Avenue, N.Y., was formally opened on the 29th of July. Gov. Hoffman presided and made a short address.

Death of Prof. Czermak.—Prof. Czermak, of Graz, the well-known psychologist, Director of the Styrian Insane Asylum, etc. etc., died at his post a few weeks ago.

Mrs. Peter Charron, of Ware, Mass., died a few days ago, after twenty-six years of married life, during which time she had twenty-two children, all at single births.

Prof. Wm. Warren Greene, M.D., of Maine, has accepted the chair of surgery in the Long Island College Hospital, Brooklyn, N.Y.

Boston University.—Dr. John Ordronaux has been appointed one of the Faculty in the Law School of the Boston University.

Mortality of Philadelphia.—The deaths reported at the Health Office for the week ending October 19, 1872, were 250; of which 124 were of adults, and 126 of minors. Among the causes assigned were:

Consumption of the Lungs	47
Other Diseases of the Respiratory Organs	29
Diseases of the Circulatory Apparatus	10
Diseases of the Brain and Nervous System	30
Zymotic Diseases*	16
Typhoid Fever	5
Cholera Infantum	3
Dysentery	1
Casualties	12
Murder	2
Debility (including "Inanition" and "Marasmus")	31
Old Age	8
Still-born	18

* Including 2 from smallpox.

SATURDAY, NOVEMBER 2, 1872.

CLINICAL LECTURE
ON CONGESTION OF THE SPINE.

BY DR. H. C. WOOD, JR.

Physician to the Philadelphia Hospital; Clinical Lecturer on Diseases of the Nervous System to the University of Pennsylvania.

LECTURE II.

THE treatment of these cases is often very satisfactory in its results. General blood-letting is certainly, in most cases, not indicated, but possibly may be useful in some cases, when the individual affected is very robust. Local blood-letting is, I think, in many cases indicated, and ought to be vigorously practised. When the attack has been produced by suppression of a hemorrhoidal or uterine discharge, it seems to me that the most natural method of local blood-letting would be the application of leeches to the neighborhood of the anus, or in the latter case even to the uterus. As an adjuvant in these cases, and as a main reliance in others, I would advise the free application both of cut and dry cups along the spine.

Cut cups should not be used too often, yet dry cups may, I think, be frequently repeated with advantage. Although we may not be able to explain how counter-irritation acts, yet it seems to me that to deny its value in the face of our daily experience, is as absurd as it would be for a savage to deny the existence of light because he did not know how it influenced the brain. Of all forms of counter-irritation, dry cups are the most efficacious in deep-seated congestions, and, as they scarcely affect the general powers of the system, may be freely used.

As to drugs, there is one remedy which appears to have the power of acting upon the muscular coats of the vessels, either directly, or, as is more probable, through the vaso-motor nervous system. Although the contrary has been asserted, yet there is no sufficient reason to believe that ergot acts any more powerfully upon the blood-vessels of the cord than upon other arterioles. It appears to be, however, a law, that where there is a loss of nerve-tone in the muscles of a part, these muscles first feel the influence of a stimulant drug. Hence it is not improbable that in cases of spinal congestion the relaxed vessels of the cord are sooner affected by the ergot than the general capillary system. Although I use, and would recommend, ergot in these cases, it is but fair to say that its real value is by no means certain. I have never employed it except in connection with more efficient measures; and indeed it is in this way almost universally that others have used it. When with this circumstance the fact is borne in mind that a large proportion of cases spontaneously slowly ameliorate, even to perfect recovery, it becomes evident that it is much easier to *assert* than to *prove* the value of the drug. Dr. Hammond details, however, a case in which ergot used alone did seem to be of value.

To be of value, ergot must be given in large doses: a drachm and a half or even two drachms of the fluid extract three times a day. There can be no doubt but that this remedy acts with extraordinary efficiency when given hypodermically. Unfortunately, when so employed, it is so prone to cause severe local inflammation, that only the most urgent necessity justifies its use. I had received from Merck of Darmstadt some of the alkaloids of ergot, and tried them hypodermically in the present case; the result was an intensely sore arm, which at one time threatened serious consequences, and which only got well after the lapse of several weeks.

The electrical treatment is of great importance in congestion of the spine. It resolves itself into two portions,—faradization of the muscles to keep up their nutrition, and the application of a continued current of moderate quantity and considerable intensity to the spine.

The faradization should be practised in such a case as the present only to each half of the body on alternate days, so that every muscle receives a thorough faradization every other day.

The electrical treatment has been continued uninterruptedly to the present date (Sept. 10). By the 1st of July she was able to walk with the assistance of the nurse. The muscles of the legs were not all wasted, and responded well to induced currents. The feeling of numbness and formication had also nearly vanished from the legs.

The movements of the right arm were good, although she had not recovered much power in them, and the muscles of the arm responded pretty well to the induced currents. The skin of the left arm, which had presented the peculiar appearance of chronic paralysis, had now become healthy, and she was able to raise the hand by the wrist-joint from the bed. There was in the arm proper very little response to the galvanic current.

During the intensely hot weather of July and August, our patient suffered from a glandular abscess in the neck, and excessively from the heat, and has made but slow progress; but she has really made some progress, except in regard to the left deltoid, which has almost disappeared. The remaining muscles of the left arm are certainly not so wasted as they were.

Oct. 16.—Owing to circumstances not necessary here to detail, the electrical treatment has not been as regularly carried out recently as it should have been. The woman, however, is much improved, walks quite strongly, and has perfect control over her right arm. There has not been much gain in the power of voluntary movements of the left arm; the muscles, however, with the exception of the deltoid, all respond to strong secondary induced currents.

For the superficial muscles I prefer the primary induced current (current of the first coil of Duchenne); for the deeper one, the secondary current (current of the second coil of Duchenne). The reason of this is not because I believe there is any therapeutic difference, except in penetrative power, in the two currents, but simply because the greater intensity of the secondary current enables it better to reach the deep muscles. Of course with this faradization passive motions, shampooing of the limbs, and sim-

ilar measures to prevent stiffness and maintain nutrition, should be sedulously practised.

The use of the continued current to the spine is very important, and it is a matter of moment to decide, if possible, the best method of its application. Shall it be a downward or an upward current? Hammond is very decided for a descending current, but Legros and Onimus are even more positive for an upward current. The probabilities are that it makes no difference whether the positive pole be placed above or below the negative. In the present instance a descending current has alone been used. The applications have been daily, with more or less regularity, and each has lasted about fifteen to twenty minutes. The battery used was a Stöhrer, fifteen to twenty cells being brought into requisition.

Our patient took the ergot steadily from the 26th of May to the 20th of June, and had the regular use of both of the constant and interrupted currents (the strength of the former being that of sixteen cells of Stöhrer's battery). During this period she improved very markedly, so that at the last date she could sit up in an arm-chair for three or four hours, and could almost retain her urine at will. After the 20th of June no medicine was given, except some appropriate remedies for dyspeptic symptoms. She had complained bitterly of a neuralgic pain in right elbow and shoulder for some time, but these were relieved by small fly-blisters placed over the painful part.

ORIGINAL COMMUNICATIONS.

A CASE OF HÆMATURIA.

BY W. D. MARTIN, M.D.

THE subject of this account was a gentleman fifty-four years of age, who had always enjoyed uniform good health; he rode eight miles in an open wagon, the temperature being below zero, during a tempestuous day in the last week of December, 1871. Sitting upon straw in the bottom of the vehicle, he experienced such severe local cold posteriorly that for warmth he had recourse to stuffing straw under him, and was compelled, so far as possible, to use his overcoat and shawl for the same purpose. He arrived at his destination suffering generally from the effects of exposure to cold.

The urine was casually noticed to be somewhat highly colored for a few days, and so continued until he observed, particularly while at the house of a friend, on January 8, 1872, that the urine voided into the vessel after a night's rest was of a very dark-red, cloudy, and unnatural color. Thenceforth, without either pain or a desire to micturate oftener than usual, he nevertheless continued to pass urine of the character described, and the above facts were elicited when I first saw him on the 18th inst. He was strong and cheerful, and blood-stained urine was the solitary symptom in the case.

An attentive examination of the urine with the microscope failed to reveal any of the products of Bright's disease, and several chemical analyses showed no notable results. A circumspect search for albumen revealed no more than was expected from the presence of blood. The urine passed in twenty-four hours was normal in quantity, the blood during micturition was intimately mixed with it; there was no tenderness upon careful pressure over the kidneys, no local tenderness along the urethra or in the vicinity of the prostate gland; the introduction of a bougie caused no uneasiness whatever, nor was its withdrawal followed by any bloody discharge.

Under these circumstances, astringents and hæmostatics of all kinds were brought to bear, and he took, without avail, gallic acid in large doses, tinct. ferri chl., gtt. xx four times a day, turpentine, balsam of copaiba, in doses of gtt. xl,* erigeron, ergot, alum, buchu, uva ursi, etc. etc. These medicines were used both singly and in varied combination, and a week generally allowed to every new trial. Rest and astringents having thus been proved useless, he was advised to resume his business, with the hope that relief from an irksome confinement of many weeks' duration, fresh air, exercise and tonics, with the moderate use of ale or porter, might prove beneficial.

May 18.—The patient has been travelling constantly, in pursuit of business. He complains of being easily tired, but has not lost flesh, and looks well. Bloody urine is now voided *first*, the remaining and clearer portion following.

Dr. H. L. Orth, of Harrisburg, who examined some of the urine for me at that time, says:

"Two specimens were received by me: one two-ounce bottle with urine passed at 5 A.M., and one four-ounce with that passed at 12 M.

The morning urine was opalescent, of urinous odor, acid, sp. gr. 1020; and with the usual tests a small quantity of albumen was thrown down. On standing three hours it still remained acid; the resulting deposit (about one drachm) was a dense cloudy mass, and consisted of mucin, blood, pus, spermatozoa, epithelial cells from the bladder and urethra, and a few oxalate of lime crystals. Pus was inferred from the fact of the red and white corpuscles being in abnormal proportion, 3 to 1, while, as you well know, the normal is 390 to 1.

"The second specimen was of a light smoky appearance, of urinous odor, sp. gr. 1016, and after standing three hours deposited about two drachms of a light brick-red and very dense deposit which consisted of mucin and epithelial cells in small quantities, and red and white blood-corpuscles in almost normal proportions; that is, the blood in the urine passed at 12 M. was nearly pure."

The course of the hemorrhage at this time seeming to be intermittent in character,—on some days worse and again negatively better in appearance,—the sulphate of quinine was liberally administered in conjunction with the tincture of the chloride of iron, but without benefit. His final prescription in August I mention here, from the conviction that it proved beneficial in some respects:

* Abstract of the Medical Sciences, vol. xlv. p. 103.

℞ Zinci valerianatis, gr. lx;
Quiniæ sulphatis, gr. xxx;
Acaciæ pulv., q. s.
Ft. pil. No. 30.
S.—One morning and evening, every second day.

℞ Syrupi ferri phosphatis, ℥xx;
Acidi phosphorici diluti, ℥iv. M.
S.—One drachm in ℥j of water after dinner and supper, every second day. The pills and the mixture to be taken on alternate days.

October 15.—And now, after constant hæmaturia for ten months, he still continues to pass blood-stained urine without pain, but in general health and strength was never better; having lately gained considerably in weight. He says that on some days the urine is still unnatural in color, but that a drink of gin often clears it for a whole day.

As to the cause of this hæmaturia I will not hazard an opinion, but will say that it does not seem to be from hemorrhagic predisposition, and certainly not from malignant disease, as the affection positively appears no worse than when first noticed by me in January.

With reference to the source of the hemorrhage, I will state that I do not know; I leave that to the consideration of those who may be interested in this report.

ICE TO THE NECK IN HYSTERIA, AND IN SUSPENDED RESPIRATION.

BY J. T. ROTHROCK, M.D.,
Wilkesbarre, Pa.

IN March, 1872, I was requested by a dental friend to administer an anæsthetic to a patient, for the purpose of extracting a number of teeth. Notwithstanding the dread of the patient in regard to inhalation of chloroform or ether, caused by supposed cardiac and pulmonary trouble (a dread in which I did not share), I discovered on actual trial that she evinced a remarkable toleration of it, so much so that an unusually large quantity was required to produce complete anæsthesia. The teeth were extracted, and while we were awaiting a return of consciousness, hysterical symptoms manifested themselves. These culminated in one prolonged, terrific fit of hysterical noisiness. For fully an hour the patient screamed, so loudly as to set at rest any lingering doubt as to the healthy condition of her lungs. The usual restoratives were vigorously plied. Antispasmodics in turn failed. Within convenient reach from the window lay some snow. I made a snow-ball of it, and on applying it to the forehead obtained some remission in the screams of the patient; but after a faithful trial I found her still unrestored, and still noisy enough to disturb the neighborhood.

I then tried the same remedy to the neck along the line of the sterno-cleido-mastoid muscle. Within a minute she gave a deep sigh, opened her eyes, looked rational, and the hysteria showed evident signs of vanishing, as it did very soon after.

In September of the same year, I was called to see a nervous, delicately-organized woman, who had, on the death of her child, fallen upon the floor in a paroxysm of hysteria. When I reached the house I found her still lying where she had fallen, insensible, and in a state of clonic spasm, which closely simulated poisoning from strychnia. Mustard was freely applied to the wrists and ankles, and as much bromide of potassium given as could be forced, in concentrated solution, between her firmly-locked jaws. These remedies, on which I have learned to rely in like cases, seemed to fail me utterly here, after a fair, persistent trial. I then applied a lump of ice to either side of the neck, stroking it up and down lightly in the same line as I had the snow-ball in the previous case. Again I obtained a deep, satisfactory sigh within a minute. So long as I allowed her to remain without the ice-application, or applied it to the forehead or face, she ceased to take full inspirations, and went back into spasm. On applying it again, and maintaining its action, the sighs followed, and with them came relaxation of spasm and easy breathing, which within an hour terminated comfortably in consciousness. From what I afterwards learned of this same person I found that she was in the habit of having these hysterical paroxysms, and also that they never before had terminated so soon as did this one.

Within two weeks of the above case I administered a mixture of chloroform and ether to a plethoric lady. The anæsthetic was pushed to the point of marked stertorous breathing. Her return to consciousness was so slow as to alarm her friends, and I was urged to "do something." I applied the ice as in the preceding case, and almost instantly the same sigh followed. Keeping up the ice to the neck, she awoke in an unexpectedly short time, considering how profoundly she had been under the influence of the anæsthethic.

These cases are simply three from quite a number I could give. They are sufficient, however, for my purpose.

Now, how did the remedy act? Certainly not by mere pressure upon the blood-vessels; for it was quite too lightly applied to influence in any way the quantity of blood in the brain. Nor yet by mere pressure upon the nerves of the part; for Waller, page 193 et seq., vol. ii. of *The Practitioner* (English), has proven in a highly suggestive article that pressure there, affecting the nerves, is followed by a *heaving respiration, but also by syncope*, of which latter there were no symptoms save a muscular relaxation, which was natural in any condition of rest.

To my mind the most probable explanation is that the mere shock of a cold substance to the surface had something to do with recovery (this no one will probably deny); but that, superadded to this, there was supplied through the pneumogastric nerves in this superficial position to the medulla oblongata, the *besoin de respirer* of which in its obtunded state it had taken no cognizance.

Be the explanation what it may, I infer from actual trial that the remedy may be advantageously used in cases of obstinate hysterical paroxysms, and of tardy return to consciousness from anæsthesia.

By analogy, I infer it may prove of service also in cases of suspended respiration from drowning, hanging, etc., and possibly also from decided overdoses of anæsthetics.

TWO CASES OF MALARIAL DIARRHŒA.

BY H. G. LANDIS, M.D.,
Niles, O.

MRS. W. B., æt. 32, was delivered September 10 of her twelfth child, after a hard labor and the use of instruments, due to pelvic deformity and an enormous child. She had repeatedly suffered from similar labors. On the following day she was put on an antiphlogistic course of treatment, in order to be prepared for the inflammation, which seemed after such a labor almost inevitable. On the 12th, a small dose of ol. ricin. was taken, after which she had several evacuations. On the 13th, considerable inflammation of the vagina existed, and the bowels became very loose. Hops were applied locally in the form of a poultice, and all other treatment but morphia suspended. The diarrhœa persisting, opium and tannic acid were used freely until the 19th, when both the diarrhœa and vaginitis were at an end. After this she did very well, sitting up on the 24th, and walking out on the 26th, until on the 27th another attack of diarrhœa commenced, occurring every night without either chill or fever, and not troubling her in the daytime; differing in this respect from the former attack, which was irregularly continuous. On October 1, I first became aware of this condition, and gave bismuthi subnitr., myristicæ, āā gr. x, every four hours, which had no effect whatever. Guided only by the periodicity of the attacks, I gave her quinine on the 3d, which promptly stopped the diarrhœa in one day.

D. P., æt. 35, applied for treatment September 21. He had suffered from diarrhœa for three weeks, and was now passing some blood and pus. As in the former case, he was only troubled at night, but, being daily engaged at hard work, was occasionally chilly, and subject to cold perspirations, for which his weakened condition would fully account. He could assign no reason for the attack, and I gave him opium, bismuth, and myristica, which gave him one night's rest, and then failed to exercise any influence. On the 24th this was changed for quinine in three-grain doses, which immediately stopped the diarrhœa.

A noteworthy circumstance in these cases is that they occurred in adjoining houses, and at about the same time. In neither case was there any malarial cachexia, nor even a well-marked paroxysmal advent of the diarrhœa, for its occurrence at night was at irregular hours. The phases of the poisoning in a very malarious district are often curious, nearly every disease occurring during its prevalence being more or less complicated by it; but the occurrence of a distinct disease, due to this cause, and yet giving no sign except the doubtful one of nocturnal recurrence, is worthy of more attention than has been paid to it. It seems highly probable that these irregular manifestations of malaria will ultimately have a prominent part in solving its origin. With the existing theories of the disease, these cases point either to a possible resistance of the intestinal tract to the absorption of the miasma, or to an elimination of it from the body. Now, if the first alternative could be sustained, a very important suggestion arises, viz., that a paroxysm of intermittent fever has its determining cause outside of the body, and that each paroxysm is a separate attack from without; a sort of "swarming" of the disturbing organisms on the affected person. If they fail to enter the body, only a local irritation follows; otherwise the ordinary phenomena succeed. It is, however, better for the present to call attention to the bearing of these and similar cases, rather than to elaborate any theory on insufficient materials.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

CLINIC OF PROF. S. D. GROSS.

Reported by FRANK WOODBURY.

HÆMATOID TUMOR.

SEPTEMBER 28.—This young German, twenty-two years of age, was brought here by his physician from Mauch Chunk, Pennsylvania, on account of a tumor on the anterior aspect of the right elbow-joint. This, he tells us, has existed for eighteen months, and he first noticed it about three months after receiving a severe blow with a stick, upon the part, which bruised and broke the skin. This tumor has been persistent, gradually attaining the size of a hen's egg, and deprived him of the use of his arm by the pain which was produced by moving it. Eight weeks ago his physician commenced an operation for the removal of the tumor. He made a subcutaneous exploratory incision, by entering a bistoury under the skin about an inch farther down the arm and running it up into the swelling. This was followed by profuse hemorrhage, which, although finally controlled by cold applications, deterred him from proceeding further. This sinus has remained open, and the flow of blood recurring at short intervals has rendered the patient almost exsanguineous; his face is anæmic and pallid.

We find here œdema of the hand and forearm, undoubtedly produced by this circumscribed tumor in the bend of the elbow, which, by pressing on the superficial veins, obstructs the return of the blood from the parts and forces some of its watery constituents through the coats of the smaller vessels. On examining this tumor we find it circumscribed, with considerable hardness and some fluctuation, and a sensation as if it contained a semi-fluid substance. This inclines me to the opinion that it may be of a nævoid character or a blood-cyst, caused by the injury. It is not an aneurism of the brachial artery, as it is not in the line of that vessel, and there is no pulsation or aneurismal thrill. A grooved director passes readily up the sinus into the swelling, and its withdrawal is followed by the flow of a few drops of a ropy, glutinous, grumous fluid.

What I propose to do, after administering chloroform, is to insert a grooved director into the sinus and slit up the skin as far as the tumor. I am not prepared to state positively the exact nature of this affection, whether it is aneurismal or nævoid, malignant or benign; my object is to prevent future hemorrhage, which, if allowed to continue unchecked, would undoubtedly prove fatal. The indication is, therefore, to cut down and remove the cause if possible. We will tie any vessels we meet, as we proceed, as he is not in the best condition for the operation and can ill afford to lose any more blood. We find the parts in the neighborhood very vascular, and all the small vessels are enlarged;

ligatures are of no use, as the blood flows, not from one or two, but literally oozes from a thousand points. During the operation the brachial artery is compressed by an assistant. The tendon of the biceps muscle passes directly over the tumor, and must, therefore, be divided in order to enucleate the cyst. The sac of the tumor, which is quite thick and contains a number of enlarged veins, is evidently formed by interstitial deposit in the connective tissue, which sends fibrous bands into the interior, resembling the musculi pectinati in the ventricles of the heart. Its contents are partly fluid blood, and the remainder is grumous and clotted, proving its traumatic origin.

The wound, which is quite deep, we will now fill with cotton wadding dipped in Monsel's solution, which has powerful styptic and antiseptic qualities. A roller bandage will be applied upon the hand and forearm, and the limb kept elevated. He shall have an anodyne immediately; we will give him half a grain of morphia, which is much better in these cases than smaller doses. In order to keep down inflammation and avert hemorrhage, ice will be applied to the part, for the same reason that ice is applied to the head in cerebral meningitis, to reduce the heat and morbid action; the same care, however, must be exercised not to allow it to remain too long in contact with the surface, lest it should freeze the part and produce sloughing. He must remain in bed for a day or two, until the danger from hemorrhage is over; to avoid this, as the brachial artery may be extensively diseased, a tourniquet will be loosely applied around the arm, ready to be used in an emergency. As his system is in such a depressed condition, we will bring it up with a nourishing diet, with animal broths and a glass of milk-punch every day, and the administration of iron and quinine.

Twenty-five years ago, when bleeding was much more frequently performed than it is now, effusions of blood in the cellular tissue, with the formation of a bloody cyst, or hæmatoma, as it is now called, quite commonly resulted from venesection in the arm. Occasionally the lancet pierces the artery and forms an aneurism. In such a case the best plan of treatment would be to cut down upon the artery and tie it above and below the lesion. I remember, when in Louisville, a man came to me whose arm, in consequence of a venesection, had become swollen and dark-colored from the wrist to the axilla. Erysipelas had ensued, exhausting the patient and threatening his life. I ligated the artery above and below the point of injury, laid the parts open freely, turned out the blood, and saved the man. The young practitioner who attended him was afterwards mulcted in heavy damages, although I do not think that he was to blame, as such an accident might follow any venesection.

October 19.—The wound has entirely filled up with granulations. The styptic cotton was allowed to remain in the wound for three days, at which time suppuration commenced and the healing process began. He has been using the oxide of zinc ointment, which is especially adapted to cases where there is irritation of the skin, such as itching or pruritus, but does not possess any cicatrizing qualities. We will therefore suspend its use, and apply instead the acid nitrate of mercury ointment, which is a powerful cicatrizer; this should, however, never be used in the full strength as sold in the shops, which is too stimulating, but should be diluted in the proportion of one part of the ointment to ten parts of lard, and be applied on a piece of lint.

The muscles are stiff from want of use and from interstitial deposits. The inflammation resulting from the operation has caused an effusion of plasma among the muscles, and has extended into the joint, producing false ankylosis. To overcome this, passive motion must be used twice in the twenty-four hours, performed gently at first, so as not to interfere with the healing process or produce fresh inflammation. The limb is to be washed daily with warm water and a little soap, so as to stimulate absorption. The patient has much improved since the operation, both in appearance and condition. The treatment, with daily open-air exercise, will be continued for a short time until he is perfectly well.

AN UNUSUAL CASE OF HYDROCELE.

This interesting specimen was furnished by Dr. Barton, chief of my surgical clinic. The patient from whom it was obtained, a man thirty-five years of age, has been troubled for several succeeding summers by a great increase in the size of his scrotum, which, during the winter months, gradually resumed its natural condition. This summer it was more distended than ever. In June, Dr. Barton drew off with the trocar eight fluid-ounces of a fluid resembling milk in color and consistency; three weeks later seven ounces were removed, and on the 12th of this month six ounces more, somewhat darker in color; which is here exhibited.

The fluid of hydrocele, especially in young subjects, is, as a rule, a pale, watery liquid, but sometimes of a pale sherry color. This always contains a large amount of albumen, which coagulates by heat. In rare cases, by reason of its containing in addition a quantity of fatty matters, especially of a micaceous-looking substance known as cholesterin, it assumes this color. From a careful analysis of the fluid in this case, made by Dr. Barton, I am enabled to give you its chemical composition. It was found to contain sulphate of soda, tri-basic phosphate of soda, chloride of sodium, urea, albumen, fat, and water. On microscopical examination the field was filled with fat-globules, which were entirely soluble in ether.

SPERMATORRHŒA.

This patient, a young man of twenty-two years, has suffered from frequent seminal losses during the past eight or nine years; the primary cause he considers was masturbation. The discharges occur several times a week during sleep, and he also thinks that some passes off in the urine. He is troubled with indigestion and constipation, is depressed in spirits, and his general health is undermined.

This is a not unfrequent result from a practice which, I regret to say, is not exclusively confined to the male sex; and is generally acquired while at school. The continued irritation of the genital organs induces an erethism of the entire genito-urinary tract, the parts being in a state of unnatural excitation. This determines more blood to the organs, and slight causes are sufficient to induce erections and seminal losses, generally at night. At first these emissions occur during sleep, towards morning, accompanied by a lascivious dream and sensation. Ultimately, as the parts become more enfeebled, the discharge occurs without sensation, consciousness, or erection, not being discovered until the succeeding morning, or it may even occur during straining at defecation. This may continue for years, ruining the health and depressing the mind, especially if the exciting cause is continued. The individual constantly broods over his condition; he cannot look his fellow-man in the face, and shuns society; if he sees a friend coming towards him in the street, he will, in all probability, cross to the other side to avoid him. This may end in settled melancholy, epilepsy, or insanity.

This affection can only be confounded with prostatorrhœa, which consists in the discharge of a few drops of mucus from the prostate gland and urethra, taking place either in expelling the final drops of urine, during defecation, or from excitement. Emissions taking

place in the daytime are generally of this character, while those at night are true seminal fluid. But seminal losses, within physiological limits, do not constitute a disease. Every man in health has occasional emissions, which generally occur during sleep, under the influence of a dream. It is only when these become abnormally frequent that the disorder is called spermatorrhœa, affects the patient's health, and calls for treatment. His statement that he lost the fluid during urination is incorrect. It never passes off in that way, as is proven by a microscopical examination of the urine. It is true that a few spermatozoa may collect at the prostatic portion of the urethra and be swept off by the urine; but if there was an actual mingling of the two fluids, this element would be present in much larger quantity.

Where the case is plainly one of spermatorrhœa, treatment should be instituted promptly. Milder cases will generally recover spontaneously after withdrawal of the exciting cause, by proper attention to the diet, avoiding anything of a stimulant character, and invigorating the system by cold baths and exercise. In chronic cases the best treatment is cauterization of the prostatic sinuses, to remove the hyperæsthesia of the ejaculatory ducts. These are in a state of morbid sensibility, and our object is to remove this condition so as to lead them back to their natural condition. An instrument was devised for this purpose by Lallemand of Montpellier, who wrote a book on this subject. His instrument consists of a catheter, from whose extremity a cup, containing a stick of lunar caustic, is made to project by pushing in a stylet at the handle. One objection to this instrument is that in several cases, in which it was used, the caustic broke off in the urethra and gave trouble. To obviate this, I modified the instrument, many years ago, by having it closed at the vesical extremity, near which, on its convex surface, is a fenestra, which is placed over the desired spot, and a little cup containing powdered nitrate of silver is brought opposite it and in contact with the part, by pushing in the stylet. This instrument we will now use, introducing it as an ordinary catheter until we have reached the proper situation, where it is allowed to remain for a few moments, and is then withdrawn slowly, so as to extend the impression along the urethra. After this operation there will be some pain and scalding, and an anodyne should be given. I generally prefer in these cases two drachms of paregoric or one-sixth of a grain of morphia. The operation may be repeated at the end of eight or nine days; it must not be performed too frequently, as it would do harm. Three or four applications, in most cases, are all that will be required to effect a cure. All sources of irritation should be avoided. The bowels should be kept in a soluble condition by some aperient laxative, and the general health improved by tonics, open-air exercise, cold bathing, and a nourishing diet.

SYPHILITIC ULCERATION OF THE FACE.

This young married woman has a number of superficial ulcers involving the upper lip and the entire nose, which is partly destroyed. These extend from the eyes down to the mouth, are covered with spoiled lymph, and tell their own story. The patient lives with her husband, who is healthy, and she denies ever having the primary lesion, sore throat, or eruption on the skin, but I am, nevertheless, convinced that it is nothing but syphilitis. Why it selected the face in preference to the legs, or the skin instead of the lymphatic glands, hair, periosteum, or bones, no one can tell. You can judge positively from its appearance that this is not cancerous, as it has not the aspect of an epitheliomatous sore.

Now, what should be done here in the way of treatment? To treat it locally, only, would be the height of folly; we will, therefore, also give our constitutional remedies. The iodides, either of potassium, sodium, or ammonium, produce almost a specific effect in this disease, especially when combined, as I am in the habit of using them, with a small quantity of the bichloride of mercury. Nausea, produced either by too large doses or a too long continuance of them, must be avoided, as it would depress the patient. We commence then with a small dose, and will increase it judiciously.

℞ Potassii iodid., gr. viij;
Hydrarg. chlorid. corros., gr. $\frac{1}{10}$. M.

Take either directly before, or an hour after, each meal. The diet must be light and nutritious, and the skin must be kept clean, avoiding taking cold. As a local application to promote cicatrization,—

℞ Liq. hydrarg. nitrat., gr. x;
Aquæ, f℥j. M.

Use once a day, and have a cloth wet with—

℞ Liq. plumbi subacetat., f℥j,
Infus. ulmi, f℥viij,

kept constantly on the part.

September 28.—Patient presented; much improved. Treatment continued.

October 19.—The ulcers have entirely healed under the treatment, thus verifying our diagnosis. The specific remedies will, however, be continued for some time longer, until the poison is effectually controlled; or the ulceration may return. The patient's nose is very much disfigured, and at a future period, when she has quite recovered, we will make her a new nose by a plastic operation, taking a flap of skin from the adjacent parts. This is an ancient operation, and was invented and practised by the Chinese centuries ago. Tagliacozzi, an eminent Italian surgeon, by an ingenious but tedious process, took a flap from the inner side of the patient's arm, over the flexor muscle, the hand being fixed to the top of the head and the arm firmly held in position by apparatus, until the skin adhered to the edges of the gap, which had been freshened previous to stitching on the new integument. This was subsequently modified by the German surgeons, but the original Chinese method is the one now generally preferred.

Congenital Hypertrophy of Left Hand and Arm (*Australian Medical Journal*, January, 1872).—A remarkable case of this affection is recorded by Mr. P. H. MacGillivray, of Bendigo. The disproportion between the two arms was but slight at birth, but at the age of twelve months the left arm began to grow rapidly, the whole limb from the shoulder becoming much enlarged, to some extent in point of length, but chiefly in thickness. The first, second, and third fingers were enormously hypertrophied, the hypertrophy involving all the structures. The child could use the arm and all the fingers, but could not lay hold of anything. As the most likely way of arresting the growth, Mr. MacGillivray ligated the brachial artery high up. This was accomplished successfully, and a month afterwards no increase had occurred. The hypertrophied fingers were then amputated with good result, the arm and remaining fingers ceasing to grow, and the child obtaining good use of the latter. Photographs of the limb accompany the paper.

The American Medical Association.—Permanent members who have not paid their assessment will please notice: "Any permanent member who shall fail to pay his annual dues for *three successive years*, unless absent from the country, shall be dropped from the roll of Permanent Members."

(Signed) Wm. B. Atkinson,
Permanent Secretary.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

MORTALITY RETURNS.

BY the courtesy of Mr. George E. Chambers, Registrar of the Board of Health, we are enabled each week to place before our readers the latest available returns of the causes of death in the persons interred within the city. Although we are well aware that these documents are open to many criticisms, we think they have a certain value in themselves, and that it is even possible, from the comparison of a long series of them, to arrive at conclusions of some importance. Thus, a very casual view can distinctly trace the influence of meteorological changes, in the varying proportions of the different classes of disorders, not only in the same year, but in a succession of years. During epidemics, their rise and decline may be marked with something like accuracy, and by the apposition of their statistics with those of temperature, rainfall, prevailing winds, etc., especially when the observations extend over long periods, information has been gained as to the circumstances favoring or retarding these scourges.

The great difficulty with these statistics lies in the vagueness and inaccuracy with which so many of the special returns are made. Not only the ignorant among regular practitioners, or quacks, but many of the really scientific in the profession, regard the death-certificate as a document issued rather to prevent foul play,—as a sort of permit to the grave-digger to break the ground,—than as a responsible expression of opinion as to the exact cause of death. Thus we find, in one week's return, deaths reported as due to "child-bed," "dropsy," "disease of lungs," "disease of liver," "hemorrhage," "inanition," "insanity," "malformation," "suffocation," "tumors," "ulcers." Such vagueness wholly destroys the value of the reports.

As to positive ignorance, and inaccuracy, we may, perhaps, believe that the errors in one direction would be likely to offset those in another, so that about as many cases of smallpox, for example, would be unrecognized, as other cases mistaken for it and so reported.

Much has to be done in every way to improve the value of these returns, and we trust that the attention of our medical societies and statisticians will before long be drawn to the matter more effectively than heretofore. We would ask our readers to use their influence, wherever possible, in the interest of science, to bring about a change in this respect.

A short time since, in New York City, a most absurd attempt was made to show, from the mortality returns, the advantage of homœopathy, in that a smaller proportion of deaths was reported by the adherents of that system. The following extract from the proceedings of the New York County Medical Society will expose some of the fallacies of this comparison :

"Dr. F. V. White, referring to a correspondence which lately appeared in *The Medical Record*, asked the privilege of inquiring of Dr. Russell (the Register of the Bureau of Vital Statistics of the New York Health Department) what authority the homœopaths had for asserting that they have a less percentage of mortality in their practice than the regular profession.

"Dr. Russell said the gentleman had used the privilege, which is open to all, of examining the books of his office, and had, moreover, employed the services of a couple of clerks for two months. Nevertheless, in the statements he had made at the meeting of some homœopathic society, he had distorted facts, and administered untruths in other than homœopathic doses. As an illustration of the way he had conducted his examination, Dr. Russell mentioned that he had commenced by placing homœopathic physicians in good standing in one list, and in the other embraced ourselves with all the quacks, abortionists, and irregular practitioners.

"Dr. Jacobi remarked that since the statement referred to did not make any estimate of the comparative numbers of patients treated by the two classes of physicians mentioned, the statement of comparative mortality was of no value whatever. The whole affair reminded him of something which occurred not long ago; when a physician had said that Dr. Jacobi killed a great many more babies than he did—*ergo*, he was the better doctor of the two. He (Dr. Jacobi) had been uncourteous

enough to remark that perhaps Dr. Jacobi 'killed' more babies than this physician referred to treated altogether.

"Again, no account appeared to be made of the fact that the great multitude of pauper patients which are found in our numerous public hospitals and dispensaries are under the care of regular practitioners, whereas the homœopaths have not a single hospital containing patients of this class.

"Dr. Russell explained that the person who made this estimate had professed to exclude from his list all hospital and dispensary physicians; but as very many of our best physicians hold hospital and dispensary appointments, and as it is a matter of impossibility to say what patients are treated in the public and what in the private practice of these gentlemen, the valueless character of the estimate is apparent. Furthermore, the author of the homœopathic circular estimates an average of 30.89 deaths to each regular physician, whereas he doubted very much if there is a single regular physician in the city who had as many as thirty deaths in his private practice during a year; the number, even among some of our eminent men, being much below that number.

"One of the older members of the Society, in relating 'what he knew about signing death-certificates,' said that he had found that in his neighborhood the homœopaths were in the habit of getting rid of cases which were likely to terminate fatally, and of shifting the responsibility of signing a death-certificate upon the shoulders of some regular physician. During the years in which he had practised in the country, he had accumulated on his books over three hundred cases of this sort, which had been turned over to him by the homœopathic practitioners around him."

THE EPIDEMIC AMONG HORSES.

THE daily papers have for several days been filled with accounts of a disorder which, apparently originating in Canada, has spread over the northern and eastern portions of this country, affecting the horses so universally as to produce a vast degree of inconvenience and loss. Over 18,000 horses are said to be too ill to work, in New York City alone. Probably these lines will not be in print before the epidemic (or *epizootic*, as the newspaper purists have it) will have spread southward as far as this city. It seems to be a sort of influenza, and the mortality from it is not very great. Rest, fomentations to the throat and legs, sweating, and anodynes, seem to be the most rational elements of the treatment, and to have had the best results.

We have as yet seen no mention of mules or horned cattle being attacked with this disorder; but the proportion of mules to horses kept in the more northern States is so small, that allusion to them would perhaps be omitted for this reason. If mules are insusceptible to it, we can scarcely understand why they could not have been temporarily substituted for horses in the more important uses of business and necessity.

Some of the newspaper reports speak of the disease as affecting the human species, apparently by contagion; but these statements are doubtful. We fear that experience will enable us to judge but too well of the accuracy of our advices from the districts already suffering under this real scourge.

AN EXTRAORDINARY SCENE IN COURT.

ON the 15th of July last, a most extraordinary scene, and in our opinion a most barbarous and revolting exhibition of judicial cruelty, took place at the Assize Court at Chelmsford, England. We quote the account of it given in the *Medical Times and Gazette:*

"A young and, as the newspapers express it, 'interesting-looking' married woman was arraigned for the wilful murder of her husband's first wife by poison. The deceased had died on October 10 last, and the prisoner, who was married only in December, was far advanced in pregnancy. The woman was in the dock, with a couple of brief intervals, for the space of seven hours, and bravely she bore the trying ordeal, conducting herself with as much ease and self-possession as any lady whilst dispensing the hospitalities of her own drawing-room. In the course of the afternoon, just after Sergeant Parry had cross-examined Dr. Stevenson relative to the presence of arsenic in the viscera of the deceased, and the Hon. G. Denman was commencing his re-examination, the prisoner, who had risen from her seat during the delivery of Dr. Stevenson's evidence, was led out of court, and the rumor spread that her confinement was imminent. Her speedy reappearance, accompanied by Mrs. Gilson, Finch, and Carter, reassured the court, and it was intimated to the judge that the trial had better proceed. It was evident, however, to skilled eyes, that the poor creature suffered from either true or spurious labor-pains. A couch was brought, and the examination of the expert was resumed. For the next hour or two the scene was ghastly in the extreme. Labor-pains recurred at one time every three or five minutes, the prisoner alternately reclining, sitting, and standing; the evidence meantime proceeding as if nothing had happened. At one time two medical men were with her in the dock at the same time, and it was evident that their cheery counsel revived the poor creature. At 5.30 P.M., the evidence for the prosecution being finished, and no evidence being forthcoming for the defence, the question arose what was to be done. Baron Martin offered to go on with the case till midnight if necessary, but it was represented by counsel

that the medical men were of opinion that the poor creature might be the better for a night's rest; so the trial was adjourned till next morning, and the excited spectators, among whom were a large number of unmarried females, dispersed. In the course of the evening the prisoner was delivered of a child; next morning the jury was discharged, and the trial postponed for three months. We suppose such a harrowing scene could scarcely have been avoided. What the consequences would have been had the trial proceeded, and either a verdict of guilty or of not guilty been pronounced, we cannot say. Happily, such another tragedy as this can rarely be enacted in all its details. Meanwhile the miserable woman is condemned to a further three months of suspense."

It seems as if comment on this would scarcely be necessary; and yet we cannot but think that, had such a scene been described as occurring in an American court-room, the foreign journals would have denounced it as a hideous outrage. Why the trial could not have been postponed for three months just as well before this public exposure of the poor creature's agonies as after it, we are not informed. If the actual pangs of labor are not to interfere with the progress of a judicial inquiry of the gravest moment, the patient being merely under suspicion, it does not seem as if any bar could exist to carrying out the extreme sentence of the law on a convicted person the moment that delivery had taken place. As the matter now stands, we must regard it as a grievous blot upon the vaunted civilization of England.

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times.

DEAR SIR,—There appears in your last issue a letter from Dr. Horatio C. Wood, Jr., in which he disclaims having had any personal or discourteous intention in his criticism on my views in regard to veratroidia and viridia. I accept the doctor's explanation, and would have been most happy to have allowed the discussion to have ended with his letter, were it not that he has again either *misread*, *misunderstood*, or *misrepresented* me.

1. In reference to the "*curious blunder*," now "*curious error*." The respective paragraphs in his "criticism" and in his letter to you are *self-contradictory*. However, the following extracts from the *Medical Record* will at once conclusively prove that the "*deduction* which he (Peugnet) attributed to me (Wood), namely, *that therefore, it is through these nerves that the alkaloids act on the intestinal tract*, that I objected to," has no foundation whatsoever, *either by word or by inference;* viz., from page 125:

"IV. That its action on the alimentary canal as an emetic and cathartic was due to its special action on the pneumogastric nerve, through the circulation, and not to any action as a local irritant, *is shown* by the fact that these were the last symptoms developed instead of the first—*also by the experiments of Prof. Horatio C. Wood with the veratroidia.*"

From page 129:

"That its action on the heart is through the sympathetic is shown by the experiments in which Prof. Wood divided the pneumogastrics; *these experiments further show that its peculiar action* on the alimentary canal *is through the pneumogastric nerves*, for there was no vomiting and purging except in the animals in which he had not divided the pneumogastrics."

2. In reference to the *viridia*, he says, "It is simply nonsense then to assert that the sedative powers of the latter alkaloid depended upon a contaminating portion of the former." I believe that every practitioner of medicine frequently combines remedies so as to either modify or increase the action of one or both, each one, or only one, acting *as an adjuvant* to the other. The same I believe has been found to exist in nature by higher authorities than either Dr. Horatio C. Wood, Jr., or myself. Therefore it is a needless task, and would be a waste of your valuable space, to enter into *an equation* to prove it.

3. In regard to *paralysis*, the doctor has now fully committed himself; and *I most emphatically deny that there existed any paralysis in a single one of either his or my experiments, with the viridia or veratroidia.* For every educated and careful observer is aware that Dr. Horatio C. Wood, Jr.'s indefinite expression, "all kinds of irritation," is not a sufficient indication of paralysis of the nerve-centres, *but merely indicates anæsthesia and loss of power.* As he only made use of the galvanic current on a few frogs, and since in every instance they responded to that stimulus, *he cannot rationally regard* that experiment, made exclusively on cold-blooded reptiles, as *proof presumptive of paralysis.* Whilst in every experiment made by myself, with the assistance of my friend Dr. Teats, the warm-blooded animals responded perfectly to the galvanic currents,—that is, endeavored to *remove the irritating pole from any portion of the body whatever to which it was applied*, whilst to "all other kinds of irritation" *they remained insensible.* Consequently I am correct in saying loss of power and anæsthesia, *whilst Dr. Wood is manifestly in error when he says paralysis.*

4. The non-use of the *cardiometer* is again a source of annoyance to him; for he says, "Dr. Peugnet makes a vital mistake in supposing that the use of the cardiometer or some similar instrument is not necessary to the experimental study of the circulation." The doctor *is again in error here*, for I accepted his views in regard to the action of veratroidia on the circulation, also *as to the action of Bullock's so-called pure viridia*, claiming that it was the combined action of the alkaloids. But in reference to my pure tested viridia, I quote what I did say, from page 473 *Phila. Med. Times*, viz.:

"He also objects to my conclusions in reference to the

circulation, as I did not make use of the cardiometer. I did not deem it necessary; for, as he admits that 'there was no slowing of the pulse' in my experiments with the viridia, its use was not necessarily indicated."

Furthermore, the following experiments are conclusive:

"XXII. I took gr. ¼ dissolved in acidulated water; at the end of one hour, no perceptible effect.

"XXIII. I took gr. 1 in capsule, P. 64; 25 min. P. 78; 35 min. P. 64; 55 min. P. 64; 60 min. drank a small glass of ale; 70 min. P. 64; there was no other effect perceptible, unless a pleasant muscular exhilaration and tension."

5. As Dr. Samuel R. Percy has not disputed my views in regard to his so-called exhausted resinoid of veratrum viride, and, *what is more, has accepted them as correct*, I doubt the *right and even the propriety* of Dr. Horatio C. Wood, Jr.'s saying "*especially as my results are in strict accord with those of previous experimenters*," particularly as *he was the first to make physiological experiments with viridia.*

I consider the discussion closed with this reply, to make which I was entitled, both by courtesy and usage.

EUGENE PEUGNET.

NEW YORK, October 18, 1872.

CASE OF POISONING BY ACONITE.

EDITOR PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—The following case may be of interest to your readers. Miss C. D., æt. sixty-five, weight about two hundred and eighty pounds, took by mistake f℥j of tinc. aconite root, at seven o'clock P.M. The mistake was discovered a quarter of an hour afterwards, and she drank freely of milk and eggs. At eight o'clock a physician arrived and gave sulphate of zinc, which in about twenty minutes caused her to vomit freely. There was great numbness in all the extremities, and in an hour or two a terrible choking sensation. Pulse irregular, and sixty per minute.

At 10.45 P.M. her pulse was imperceptible, and she was in a very profuse cold perspiration; there were slight convulsions. Her surface felt like that of a dead person.

At 11.15 P.M. she was apparently dead, so far as respiration or circulation could be discerned; yet she kept some part of the body moving, and in less than an hour began to rally. By midnight her pulse was perceptible; she continued to improve, and by nine o'clock next morning she was quite free from all symptoms of poisoning, although feeling very weak. She made a good recovery, but died in three weeks from the effect of a carbuncle, or rather a large sloughing phagedenic ulcer, which had developed itself across the lumbar and sacral region before she took the aconite.

Stimulants (brandy) and external heat constituted the treatment. Very truly,

G. COX, M.D.

SOUTH HADLEY FALLS, MASS., October 17, 1872.

REVIEWS AND BOOK NOTICES.

OVARIAN TUMORS: THEIR PATHOLOGY, DIAGNOSIS, AND TREATMENT, ESPECIALLY BY OVARIOTOMY. By E. RANDOLPH PEASLEE, M.D., LL.D., etc. New York, D. Appleton & Co.

Another work on ovariotomy! Good heavens! where is this to end? What with ovariotomy made easy, with these ready methods *in usum Delphini*, every recent graduate will be making the major incision and spaying his patients on the mildest provocation. We say this advisedly, for at this very moment there is lying before us a pamphlet on—dare we give it?—the extirpation of the ovaries for endometritis; nay, *with a case in point.*

Despite our well-founded fears, we honestly confess that the work whose title heads this notice was very much needed. It shows prodigal industry, and embodies within its five hundred and odd pages pretty much all that seems worth knowing on the subject of ovarian diseases. To the superficial reader it may appear the height of audacity for an author with only twenty-eight cases of ovariotomy to his name, to lay down the law in the face of men who have had almost as many score. But this very paucity of his own statistics has, very fortunately, driven him to do what no other ovariotomist has yet done. Some have given the history of their cases,—their individual experience,—liable as all such experience is to be warped by hobby or partisanship. Others, like Kœberlé, of Strasburg, have favored the profession with what may be termed autobiographies, in which they have cried "Eureka!" blown their own trumpets, and given the view-halloo on every possible occasion. But Prof. Peaslee, taking a broader scope, ranges over the whole domain of the subject. Comparing his own experience with that of others, he has winnowed and sifted the whole of all chaff, and has given the clean grain to the reader. The frontispiece tells the whole tale; it is a portrait—not of the author, but—of Ephraim McDowell, the father of ovariotomy.

Like old Gaul, this excellent book may be divided into three parts; and, to pursue the simile, we predict that, like old Gaul, it will give its hero a triumphal procession along the Via Sacra up to the threshold of Tarpeian Jove. Part first discusses the "normal anatomy, pathology, and treatment of ovarian tumors—excepting ovariotomy." (We give the quotation-marks, not wishing to be held responsible for the phrasecology.) Part second sketches the history of ovariotomy; whilst the third part is devoted to the subject of ovariotomy proper.

Each is treated exhaustively, and each will be read with pleasure and with profit; but the one on which the general reader will linger is that on the history of ovariotomy. With its lights and its shades, its friends and its foes, its converts and its perverts, how like a romance it reads! With all opposition gone, with the operation legitimized, tame will its future be. But we forget: there lingers on one Jacobite, one adherent of the ancient dynasty. Consistent to the last, this venerable Cassandra, luckily not of us, but *in partibus*, holds out against the pitiless logic of facts. Year by year this brave old man stands up in his seat and utters his rugged protest. "Retire tois! retire tois! franc traitre Anglois;" so sang the troubadour to a Briton of the past, and so say we to thee, for thy days are of the past, and thy dreams likewise.

One patriotic pang—we still feel its twinges—prodded us as we read this history. Ovariotomy first took root in our own soil; tenderly was it nursed by our own countrymen into a comely plant. But, alas! the fruit has been plucked by strangers. British surgeons and

British works are now the standard authorities. Think of Clay of Manchester, with one hundred and eighty-two cures out of two hundred and fifty operations; of Wells, just beginning his fifth series of a hundred each; of Keith, cooped in a provincial town, saving eighty-one out of his first hundred, and thirty out of his next thirty-six cases. A murrain—but no, the thought is too uncharitable. After this we can no longer maintain idyllic relations with perfidious Albion.

Of course the old stock-story of the Hungarian sow-gelder and his amorous daughter is given—what work on ovariotomy is considered complete without it? This thrice-told and thrice-apocryphal tale we forgive the author, but hardly such rasping hybrids as "The olygocystic cystoma ovarii," and its kin. But the evil spirit of hypercriticism is upon us, and we end, not, however, without one Parthian shot. In the dedication to this book, Spencer Wells's name is coupled with that of Ephraim McDowell. Why is this? Why, instead, was not the name of the first of living American ovariotomists? Single-handed, Atlee has fought his way *per aspera et ardua* up to fame and honor. He it is who legitimized the operation at home and abroad. True, Wells has the numerical advantage; but Atlee and Clay had paved the way for him, and he entered the lists with a flourish of trumpets, with heralds and pursuivants, and with the plaudits of an admiring throng.

A Manual of the Diseases of the Eye. By C. Macnamara, Surgeon to the Ophthalmic Hospital; Professor of Ophthalmic Medicine in Calcutta Medical College. Second Edition. Small 8vo, pp. 620. Philadelphia, Lindsay & Blakiston.

The first edition of this work, published by Churchill & Sons in 1868, took its place in medical literature as the most complete, condensed, and well-arranged manual on ophthalmic surgery in the English language. Arranged especially for medical students, it became, however, the work of reference for the busy practitioner, who could obtain nearly all that was best worth knowing on this subject, tersely stated, and easily found by the aid of the excellent marginal notes on the contents of the paragraphs.

The second edition, now before us, differs from the first only in the introduction of new material rendered necessary by the advancement in ophthalmic surgery, and in the rejection of views that have been superseded. The general appearance of the book remains unaltered, and it will not be less welcome than its elder brother, with its good illustrations, compact and portable size, and flexible covers.

A few of the chromo-lithographs have been omitted, and we think with benefit to the progress of truth. The most important improvements that have taken place in ophthalmic science are now presented, and the second edition, with these marks of the careful hand of the author, may still be regarded as the most convenient and valuable manual on the diseases of the eye within the reach of the student or general practitioner.

New Treatment of Venereal Diseases and of Ulcerative Syphilitic Affections by Iodoform. Translated from the French of Dr. A. A. Izard, by Howard F. Damon, M.D. Boston, James Campbell, 1872.

The little volume before us is a neat monograph of seventy-three pages. Dr. Izard endeavors to prove by a number of experiments made in the wards of the Hôpital du Midi, Paris, that iodoform as a topical remedy constitutes the best dressing known in certain venereal lesions. This substance he used in all of the ulcerative processes of venereal disease, and found it to be of especial value in the treatment of chancroids and their buboes. Clinical notes of some twenty cases of chancroid and bubo are given, together with the treatment and results, which certainly appear to be highly satisfactory. The author's conclusions may be briefly summed up as follows: That iodoform acts more promptly in healing ulcerative venereal manifestations than other remedies usually employed. That, in the treatment of soft chancre, iodoform is in some sort a specific, from the promptness with which it produces cicatrization without pain. That, in the treatment of non-syphilitic buboes, iodoform can be employed in the form of an ointment as a resolvent, during the early stage, with more success than the blister and tincture of iodine. That iodoform acts not only as a topical agent, but still further as a local anæsthetic. We commend a reading of this work to those interested in the treatment of venereal lesions, with a view that the merits of iodoform be thoroughly tested, and that it may be assigned its proper place among therapeutical agents.

The Science and Practice of Medicine. By Wm. Aitken, M.D. Edin. Third American and Sixth London Edition. 2 vols. 8vo, pp. 1056, 962. Philadelphia, Lindsay & Blakiston, 1872.

This third American edition attests the demand which will always meet a thoroughly good work. The title-page informs us that it is "greatly enlarged, carefully revised, and many portions rewritten, etc.," with additions by its able editor, Dr. Clymer, of New York. In what the new differs from the older editions we have not the space to minutely notice, but a more complete book of reference and compendium of its subject it would be difficult to find. The American editor contributes fourteen new articles and numerous fragments. The treatment of disease, also, appears to have received more attention, vagueness on this topic having been the one vulnerable point of the earlier editions. We have also the nomenclature of diseases authorized by the Royal College of Physicians, to which the present work conforms, and though not unexceptionable perhaps, still, something definite in the way of nomenclature is better than the magnificent vagueness which a study of our weekly death-returns in the original reveals. We feel sure that "Aitken" will in the future prove as true a friend as ever, and hold its rank among the indispensable books.

GLEANINGS FROM OUR EXCHANGES.

M. Ollier's Occlusive Dressing (*Med. Times and Gazette*, August 3, 1872).—In the last two numbers of the *Lyon Médical*, M. Poncet brings forward some new illustrations of the great advantages attending the employment of M. Alphonse Guérin's mode of dressing wounds with cotton, in association, as recommended by M. Ollier, with the silicate bandage, so as to constitute what the latter surgeon terms *occlusion immobile*. The object of these papers is, however, not to set forth the general advantages of this plan, which have now been made pretty widely known, but to show its great utility in warding off those hospital complications which have so often excited terrible effects,—pyæmia, erysipelas, and hospital gangrene. During the last half-year more than one hundred of the *bandages ouatés-silicates* have been applied in M. Ollier's ward (containing one hundred patients) to every wounded surface, and not one of these patients has succumbed to pyæmia or been attacked by erysipelas. The bandage in these cases has been kept on for a week or a fortnight, and sometimes for three or more weeks; all accidents from such retention being guarded against by paying attention to

the pulse, temperature, and feelings of the patient. The bandage has had to be removed wholly or in part in a few cases, on account of the imperfect way in which it had been applied. In all cases, wherever possible, such removal has not been performed in the wards where the other patients were; the wound being also kept exposed for the shortest possible time; and the quite new, fine cotton taken only from the parcel as wanted. The portion of this brought in immediate contact with the wound has usually been impregnated with carbolic acid or alcohol. In this mode of dressing, the minutest details must be considered, and the great object of exclusion of air can only be attained by the superposition of several thick layers of cotton, which must reach very far beyond the surface of the wound. Thus, after an amputation of the leg, it does not suffice to cover the stump with the silicated bandage, but this must also comprise the thigh and the trunk. Without such precautions it becomes a bad mode of dressing, retaining pus which has undergone change from action of the air in contact with the wound. Before the bandage is applied, as many arteries as possible should be secured, and for this purpose the wound should be left exposed for fifteen to twenty minutes.

M. Poncet gives various details concerning the chief classes of wounds which were treated during this period; and he observes that if these cases were to be taken as conclusive, this procedure might be pronounced an absolute preservative against these complications. No case of pyæmia, erysipelas, or hospital gangrene was observed in cases so protected, although the last two affections prevailed in the ward. However, he wishes no exaggeration upon the subject, and observes that while failure will occur wherever the bandage is imperfectly applied, even when its adaptation is perfect, we only place the wound in the very best condition for healing by preventing complications from without. Its healing, however, of course depends also upon other circumstances; it is a means especially adapted for hospital practice, and is not required in cases treated in localities where the air is not likely to be contaminated. The cases M. Poncet relates were also treated in winter, but in summer the dressing may have to be removed every five or six instead of every fifteen or twenty days.

Period of Incubation of Typhus, Relapsing Fever, and Enteric Fever (*The Practitioner;* from St. Thomas Hospital Reports, 1871).—Dr. Murchison remarks that the period of incubation of contagious diseases, or the period that elapses between the entrance of the contagion into the system, and the first manifestation of its presence there by symptoms, is not merely a matter of scientific interest, but has many practical bearings, and lies at the bottom of many of the most important sanitary questions. Cases throwing light on the latent period of a disease are of a threefold nature: 1. Those in which there has been a single limited exposure to the contagion. 2. Those in which there has been a protracted exposure, both limits of which are known. 3. Those in which there has been a protracted exposure, of which only one limit is known. Either the exposure has persisted from the commencement up to the date of the patient's seizure, in which case it can only be said that the period of incubation has not been less than that interval, or an interval of time has elapsed between the cessation of a protracted exposure and the commencement of symptoms, and then it can only be said that the period of incubation has not been less than that interval. The first class of cases are of course the best.

Dr. Murchison gives the data on which his conclusions are founded, and states that he has been engaged for many years in collecting them. In regard to typhus fever, he believes he has ascertained: 1. That the period of its incubation varies in duration in different cases. 2. In a large proportion of cases it is about *twelve days*. 3. In exceptional cases it is longer than twelve days, but it rarely, if ever, exceeds three weeks. 4. In many cases (one-third or more) it is less than twelve days, and occasionally there is scarcely any latent period, the symptoms commencing almost at the instant of exposure to the poison. In regard to relapsing fever, the facts obtained are somewhat less satisfactory, but they point to the following conclusions:— 1. That the period of incubation of relapsing fever is not a fixed period, and is even more variable than that of typhus. 2. It is, on the whole, shorter than that of typhus. In not one of the nine cases in which it was accurately determined did it exceed *nine days*, and in a considerable number of cases it did not exceed five days. 3. Occasionally, as in typhus, there is scarcely any latent period at all, the symptoms commencing almost immediately after the first exposure to the poison.

In regard to typhoid or enteric fever, Dr. Murchison states that reliable facts bearing on the period of incubation of enteric fever are even more difficult to obtain than illustrations of the latent period of typhus or relapsing fever; his conclusions are: 1. That the period of incubation of enteric fever is most commonly about *two weeks*. 2. Instances of a longer duration appear to be more common than in typhus or relapsing fever, though in cases where it has been reported to extend over many weeks or months it may be doubted whether the disease has not had an independent origin. 3. The period of incubation is often less than two weeks, and, as in typhus and relapsing fever, it may not exceed one or two days.

Lifelike in Death.—Rossbach, in a late number of *Virchow's Archiv* (Band li.), has given an interesting account of numerous cases of sudden death on the fields of Beaumont and Sedan, in which the bodies of those killed retained the position and the expression of face present just before death. In one case, a group of six French soldiers were killed by the explosion of a single shell as they were breakfasting in a slight hollow. The shell had struck one of them, sitting in the middle, full in the back, where it was partially lodged; the fragments had torn away his thighs and buttocks, and killed his comrades. From one of them the skull was carried off, while the face still retained the expression of laughter at the joke of a companion. The next one to him still held, delicately raised to his lips, between the forefinger and thumb, a tin cup from which he was about to drink, when the explosion had taken off the whole of the upper part of the face and head. The close manner in which they were seated together had prevented the bodies from falling after the lapse of twenty-four hours. In another case, a soldier, shot through the breast, lay half reclining on one side, with the photograph of his wife or lover held up straight before him. Rossbach cannot admit that in such cases the nervous centres must necessarily be injured, nor that death must have been instantaneous. Rigor mortis must have set in between the last moment of life and the first of death.

Dr. J. H. Brinton, in an interesting article on this subject, published in the *American Journal of Medical Sciences* for January, 1870, page 87, relates a number of similar cases which were observed during the late war in this country.

Fatal Peritonitis from a Single Vaginal Examination (*Aerztl. Literaturblatt*, June–July, 1872).—During the discussion of several melancholy cases of suppurating uterine fibroids in the surgical society of Paris, Verneuil related a case where a single examination per vaginam was followed by the death of the pa-

tient, whereupon Cillette reported the case of a woman who was admitted to the hospital in 1862 with prolapsus uteri, who died in two days after a vaginal examination, from acute peritonitis.

She had suffered with a copious hemorrhage for a year. After three days' rest in the hospital, a vaginal examination was undertaken; a speculum was not used, and slight prolapsus uteri was recognized. On the following day an intense peritonitis supervened, with all its symptoms strongly marked, and in forty-eight minutes [hours?] after the inception of the disease the patient was a corpse. The post-mortem revealed besides the lesions of peritonitis a thick pseudo-membranous mass in the uterine adnexa of the left side, congestion of the left tube and ostium abdominale, redness and swelling of the left ovary, a cavity filled with pus and false membrane between the ovary and the tube, and a small subperitoneal abscess. These lesions of the ovary and its neighboring parts formed the points of departure for the peritonitis, as the uterine lining was affected only with fungous softening. Nélaton had previously diagnosticated in this subject a latent affection of the uterine adnexa. The exploration, simple as it was, excited a congestion which extended to the tubes and awakened a fatal peritonitis.

Récamier has made two post-mortems on cases where death followed in forty-eight hours after washing out the uterus. In both these cases former symptoms of latent disease had been present. Such sad instances must remind the physician of the caution to be adopted in the case of patients who complain of pain in the iliac region, which is indicative of latent disease, and must exemplify that the dangers of instrumental examination are greater than most physicians are inclined to believe.

Spina Bifida cured by Repeated Tapping and Pressure.—At the meeting of the Lisbon Society of Medical Sciences, on February 17, Dr. Camara Cabal communicated a case of spina bifida which he had treated successfully.

The patient was a child, aged twenty-five days, which had in the lumbo-sacral region a swelling forty centimetres in circumference, seventeen in vertical, ten in transverse diameter, and six in depth. It fluctuated, was transparent like a hydrocele, and appeared to contain not only a fluid, but some solid body. Pressure on it produced no convulsions, nor was there any paralysis or symptoms denoting lesion of the cord. It was therefore concluded that the tumor consisted exclusively of a hernia of the meninges, filled with fluid.

On November 29, it was tapped with a Dieulafoy's trocar, and 400 grammes of transparent yellow fluid, containing an abundance of albumen, were removed. Compression was applied by means of adhesive plaster. No symptoms followed the operation, beyond some vomiting and loss of appetite. Some days later, the tumor having enlarged, 250 grammes of liquid were removed; and on December 14, 425 grammes. The defect, which was found to be in the situation of the fourth and fifth lumbar vertebræ, was gradually diminishing. On a fourth and fifth occasion puncture was performed at intervals of some days, the quantity evacuated being respectively 175 and 125 grammes, the fluid being more highly albuminous than before. After the last two operations there was some meningitis, which yielded to ordinary remedies. The child made a good recovery.

Spina Bifida cured by Injection (*British Medical Journal*, June 15, 1872).—Dr. Morton, of Glasgow, records two cases in which spina bifida was cured by injection. The procedure may be shortly stated to consist (1) in performing two tentative tappings with a grooved needle, with an interval of four or five days between the two. (2) The tumor is tapped with a small trocar and canula, allowing about half the contents of the sac to escape, and about a drachm of a solution of iodine in glycerine is injected. The after-treatment consists in dressing with some bland substance, as oil or lard, cleanliness, and care, so as to avoid local injury or irritation. Prevention of the complete escape of the cerebro-spinal fluid he believes to be of the greatest importance; and in the second case he brushed the wound over with collodion, which answered admirably. The presence of this fluid is essential to the functional, if not the structural, integrity of the spinal cord and brain; and if it be allowed to drain away, the child speedily succumbs.

Subcutaneous Injection of Ergotin in Varix (*Berliner Klin. Wochenschr.*, March 4, 1872, and *Brit. Med. Journal*, April 27, 1872).—Having observed the records of good results following the subcutaneous injection of ergotin in cases of aneurism in the hands of Von Langenbeck, Schneider, and Dusoit, Dr. Paul Vogt, of Greifswald, was led to try the remedy in varix of the lower limb. The first patient on whom the experiment was made was a man aged sixty, who had suffered for several years from extensive varices of the leg. A solution of two grammes of ergotin was made in seventy-five grammes each of spirit of wine and glycerin, and a quantity containing twelve centigrammes of ergotin was injected at the proximal end of a varix more than two inches long, and as thick as a little finger, lying over the tibia. The injection was repeated every second day. In eight days the varix could not be seen, and in six weeks no trace was left. During the treatment the patient went about as usual. Another varix, of the size of a hazel-nut, lying on the outer side of the calf, was treated in a similar manner with the same result. At the point where the injection was made there was some hard circumscribed infiltration, which gradually disappeared. Several other patients in the Greifswald Hospital, some of them with very large varices, have been treated with the subcutaneous injection of ergotin with a surprisingly good result. Dr. Vogt believes that the ergotin causes contraction of the muscular coat of the arteries, so that the flow of blood into the dilated vessels is hindered; that it also produces contraction in the veins, and that the local infiltration following the injection may have some effect by the compression which it exercises.

Subcutaneous Injection of Ergotin in Uterine Fibromyomatous Tumors.—Dr. Hildebrandt, of Königsberg (*Berliner Klin. Wochenschr.*, June 17, 1872), has used subcutaneous injection of ergotin in nine cases of uterine fibroid. He employs a solution of three parts of aqueous extract of ergot in 7.5 parts of distilled water and the same quantity of glycerin. Langenbeck's solution he has found to produce pain, on account of the alcohol contained in it; while the use of the solution which he recommends is unattended with pain, and is not followed by suppuration. Somewhat tender indurations are now and then left for some time at the seat of injection. In general, however, the treatment is unattended with inconvenient results. The lower part of the abdomen is more sensitive to the puncture and the injection than is the neighborhood of the umbilicus. At the time of menstruation, and for a few days before and after, slight bleeding takes place from the punctures. The general result of the injections has been a diminution of the tumors; and Dr. Hildebrandt accounts for this by supposing that the increased compression produced by the ergot interferes with their nutrition, and leads to their degeneration and absorption.

The city government of Boston has purchased a site on Pine Street for a smallpox hospital.

MISCELLANY.

A Horrible Story from Paris (*Food Journal*, October 1, 1872).—Three men have been arrested, and are now in charge of the police, for manufacturing and selling *saucissons* (large, or "German" sausages) of the most disgusting composition. Perrin, the chief culprit, lived in a house at Levallois-Perret, a commune just outside the walls of Paris, adjoining Neuilly. A very bad smell frequently invaded the streets, and the inhabitants became alarmed, for the house had a terrible reputation, it having been formerly inhabited by a butcher who was executed for murder and for having sold some of the flesh of his victims for human food. The report was soon current that Perrin, who was a sausage-maker, had discovered the remains of buried communists, and was using them in his trade. The storm was gathering over the fellow's head, when a man named Bonnin appeared before the commissary of police of the place, and declared that he had purchased of Perrin three quintals of sausage, to sell by retail to the masons and fishermen of the neighborhood, and that he had been grossly defrauded, as the meat was in a horrible state of decomposition. The manufacturer and his sausages and meat were immediately seized, and the latter was in such a condition that the persons called in to inspect it were seized with serious vomitings. It turned out on inquiry that these dreadful sausages were composed of the flesh of dogs, cats, and other animals collected by "chiffonniers" in the streets of Paris.

M. E. Decaisne made an important communication to the Académie des Sciences, June 15, 1872, of which the following is an abstract:

"It appears by the figures given by the author for the principal States of Europe, that in the triple point of view of the fecundity of marriages, of the number of births, and of the excess of births over deaths, France occupies the last place in Europe. In Prussia, for every one hundred marriages there are four hundred and sixty children; in France, only three hundred. In Prussia, the number of births annually, in proportion to the population, is 3.68 per cent.; in France, only 2.55. Lastly, the excess of births over deaths in every million of inhabitants is, in Prussia, thirteen thousand three hundred, while in France it is only twenty-four hundred. From these figures we learn that the population of France will not double itself in less than one hundred and seventy years, while that of Prussia will double itself in forty-two, that of Great Britain in fifty-two, and that of Russia in sixty-six years."

Desire of the Dying for Rest.—A writer in the *Galaxy* says, "In their last hours men and women want physical rest and ease above aught else; and I have known instances in which the replies of persons near their dissolution were in such sharp contrast to inquiries made of them as to become positively grotesque. I was present when an acquaintance, having been struck down in the street by a falling chimney, was carried home in a dying state. As soon as he had recovered consciousness, his wife, half frantic with terror, leaned over the sofa on which he lay, and said, 'Oh, my darling, do you really love me?' The response was, 'Yes, if you will pull off my boots;' and these were his last words. A gentleman, long ill of a wasting fever, had reached that condition of rest which generally heralds the great transformation. His betrothed, who had devotedly nursed him, said, 'Dearest, do you die happy?' 'I should,' was the answer, 'if that infernal fly wouldn't bother me,' and spoke no more. 'Wouldn't you like to see your father?' inquired a doting mother of her only son, as his life was ebbing fast. 'Of course I should; but I'd rather have my face washed.' Such words, apparently harsh and unfeeling, come from persons of natural sensibility and tenderness, because in their dying hour the desire for material comfort often crowds out every other consideration."

Discoloration of Chinese Children (*The Practitioner;* from Report of the Pekin Hospital, by Dr. John Dudgeon).—We have often observed over the sacral region of new-born children, and during infancy, but never once in adult life, a peculiar bluish mark of considerable size. The Chinese are all familiar with it, and call it, *par excellence*, the "black" (*tsing*). From the general belief in metempsychosis, old women assert that it is caused by the dead person lying upon the cash which is placed in the coffin of the deceased. Money is added by the friends and others, we know, in such circumstances, with the view of giving wealth to the departed in the other world. Or this may probably have originated in the older idea of placing gold and other metals in coffins to prevent putrefaction. We have obtained no physiological explanation of this mark. It is not a "mother's mark."

A So-Called Home-Made Disinfectant.—The following paragraph is going the rounds of the press: "Dissolve a bushel of salt in a barrel of water, and with the salt water slake a barrel of lime, which should be wet enough to form a kind of paste. For the purpose of a disinfectant, this home-made chloride of lime is nearly as good as that purchased at the shops and drug-stores. Use it freely about sinks, cellars, gutters, and outhouses, and in this way prevent sickness, suffering, and expense." Such a mixture does not form what is commonly known as chloride of lime. A little chloride of calcium—an entirely different compound—is formed; but the latter has no disinfecting powers, and its preservative qualities are about on a par with those of common salt. The directions are entirely worthless.

Artificial Eyes.—A French paper gives a detailed account of the manufacture of false eyes in Paris, from which the curious fact appears that the average sale per week of eyes intended for the human head amounts to four hundred. One of the leading dealers in this article carries on the business in a saloon of great magnificence; his servant has but one eye, and the effect of any of the eyes wanted by customers is conveniently

tried in this servant's head, so that a customer can judge very readily as to the appearance it will produce in his own head. The charge is about ten dollars per eye. For the poor there are second-hand visual organs which have been worn for a time and exchanged for new ones; they are sold at reduced prices, and quantities are sent off to India and the Sandwich Islands.

Appointments, etc.—Dr. J. K. Bauduy, Physician to the St. Vincent Asylum of St. Louis, has received an appointment to the Chair of Psychological Medicine in the Missouri Medical College. Dr. John H. Callender, Superintendent of the Tennessee Asylum, is to lecture upon "Insanity; its Causes and Treatment," in the Medical Department of the University of Nashville. Dr. C. H. Hughes has resigned the position of Superintendent of the Missouri State Asylum. He will give his special attention to the treatment of diseases of the nervous system, in St. Louis. Dr. T. A. Howard is appointed to the Superintendency made vacant by the resignation of Dr. Hughes.

The British papers report the case of a Miss Hough, aged fifty-five, who died a quarter of an hour after being stung by a bee. The deceased was in her garden inspecting her bees, when she suddenly called to the gardener that she had been stung. The gardener, on coming to her, removed a bee from her hair. She became unconscious, and died in a quarter of an hour. The body was examined, but the only lesion was a good deal of discoloration behind the ear around the sting. The physician who made the autopsy said there was but one sting, and that he thought death was caused by shock to the nervous system. Her brother stated that the deceased, in 1870, was stung by a bee, and that she became unconscious and remained so for two hours. The jury returned a verdict of "Death from Syncope, accelerated by the Sting of a Bee."

English Hospitals in Paris.—There are at present two English hospitals in Paris. One is Galignani's well-known hospital for "English and Americans," founded in 1865 by Anthony and Wm. Galignani, with an endowment of 500,000 francs. It contains twenty beds for each sex, is well situated, surrounded by a beautiful garden, and provided with all necessary apparatus.

Lately, Richard Wallace, a wealthy and magnanimous Englishman, has founded a hospital of twenty-four beds near the Porte Maillot. It is almost always full, the number of English jockeys in Paris being sufficient to populate it with surgical cases. Drs. J. Cormack and A. Herbert are the attending physicians, who, with Mr. Wallace and the English consul, form the directors of this "Hertford British Hospital."

Medical Journalism in Canada.—Our old cotemporary the *Canada Medical Journal* has recently ceased to exist, and in its place two new journals have been started, —*The Canada Medical and Surgical Journal*, edited by Dr. Fenwick, the senior editor of the late *Canada Medical Journal*, and *The Canada Medical Record*, edited by F. W. Campbell. The editors have also assumed in addition to their editorial duties the responsibility of publishing their respective journals. There are at present three medical journals published in Montreal,—the two named above, and a French journal, *L'Union Médicale*. This useless and unnecessary division but weakens their influence, and will eventually make them a burden upon their projectors.

Ovariotomy.—The following words were uttered by Sir William Fergusson, at the late meeting of the British Medical Association, in Birmingham: "When ovariotomy was first propounded, it was little else than a theory,—a rash visionary scheme for notoriety; but, thanks to the well-directed efforts of Clay, Brown, Wells, Keith, and a host of others, the procedure is a well-established fact, which ranks among the best and safest efforts in surgery to save human life."

It would have been pleasing to Americans if Sir William had given merited credit to such names as McDowell, the first operator, Atlee, Peaslee, Emmet, T. G. Thomas, Storer, etc.

How Some Medical Schools are Chartered.—The original charter of the "Philadelphia University of Medicine" was hidden in a maze of measures entirely foreign to that subject, such as are too frequently heaped up in the Legislature to cover questionable objects. The original charter was contained in a section of an act passed in 1853, which authorized the authorities of the then borough of Frankford to borrow money to erect a gas-works; which also referred to a school-house at Powelton, to elections in a township in Juniata County, and various other matters.

Science and a Kind Heart.—A celebrated physician was called upon recently by a person suffering from rheumatism, who insisted upon his doing something for him. The physician wrote a prescription, and as the patient went out of the room, said to him, "I wish you would let me know if that does you any good, for I have myself been very much troubled with rheumatism lately."

The Largest Medical Library in the United States is that of the Surgeon-General's Office, Washington. It has 18,000 volumes. The second in size is that of the College of Physicians of Philadelphia, 15,000; and the third, that of the Pennsylvania Hospital, 13,000 volumes. [The library of the College of Physicians of Philadelphia now contains nearly 16,000 volumes. —Ed.]

Health of the Port of Philadelphia.—The *Medical and Surgical Reporter* says, "The Quarantine Master at the Lazaretto, who took down his flag for the season on Monday evening, September 30, reports the season from June 1 to October 1 as the healthiest for many years, as there has not been a single case of serious illness or contagious disease at the station or brought into port by any vessel."

The Road to Fame.—Even the fee of a patient who called him from his dissecting-instruments could not reconcile John Hunter to the interruption. "I must

go," he would say, reluctantly, to his friend, Lynn, when the living summoned him from his investigations among the dead, "and earn that d—d guinea, or I shall be sure to want it to-morrow."

BOSTON is to have a Board of Health; the administration of the sanitary affairs of that city under the arrangements hitherto existing having been so inefficient as to create great discontent among the people, as well as in the medical profession.

EXTREME EMACIATION.—Two hospital inmates were in conversation, when one of them said of a fellow-patient, "Murphy is very thin." "Yes," answered the other; "you are thin, and I am thin; but he is thinner than both of us put together."

CURIOUS.—A patent extension recumbent chair is advertised as useful "for *genealogical* purposes, without any appearance for that object."

Perhaps "gynæcological" would have better expressed the idea of the inventor.

ASSOCIATION OF MEDICAL SUPERINTENDENTS.—The 27th Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane will be held in Baltimore, on the fourth Monday of May, 1873.

WORCESTER CITY HOSPITAL, MASS.—By the will of the late Georges Jaques, of Worcester, Massachusetts, the sum of a quarter of a million of dollars was bequeathed to the city of Worcester, for the new Free City Hospital.

NEW MEDICAL SCHOOL.—The new College of Physicians and Surgeons at Wilmington, North Carolina, has been organized. Dr. J. Francis King is President, and Dr. William Walter Lane is Dean.

JAMAICA, W. I.—The new medical bill now before the Legislature opens the island of Jamaica to persons holding American diplomas in medicine and surgery.

THE College of Physicians and Surgeons of Syracuse University opened on the 3d instant, with a full corps of eighteen Professors.

THE corner-stone of the Buffalo Insane Asylum was laid September 18, with appropriate ceremonies.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending October 26, 1872, were 237; of which 125 were of adults, and 112 of minors. Among the causes assigned were:

Consumption of the Lungs	33
Other Diseases of the Respiratory Organs	33
Diseases of the Circulatory Apparatus	14
Diseases of the Brain and Nervous System	40
Zymotic Diseases (2 from Smallpox)	15
Typhoid Fever	6
Cholera Infantum	1
Dysentery	1
Casualties	4
Debility (including "Inanition" and "Marasmus")	26
Old Age	8
Still-born	15

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, TO OCTOBER 21, 1872.

EDWARDS, L. A., SURGEON.—Assigned to duty at Madison Barracks, N.Y., as Post-Surgeon. S. O. 106, Department of the Lakes, Oct. 12, 1872.

WIRTZ, H. R., SURGEON.—Assigned to duty at San Francisco, Cal. S. O. 132, Department of California, Sept. 30, 1872.

ALEXANDER, R. H., SURGEON.—Relieved from duty in Department of the East, and to report in person to the Commanding General Department of the Columbia, for assignment. S. O. 240, War Department, A. G. O., Oct. 4, 1872.

GODDARD, CHARLES E., SURGEON.—Granted leave of absence for twenty days. S. O. 202, Department of the East, Oct. 19, 1872.

FORWOOD, W. H., ASSISTANT-SURGEON.—Relieved from duty in Department of the Lakes, and to report in person to the Commanding General, Department of Texas, for assignment. S. O. 240, c. s., War Department. By S. O. 106, Department of the Lakes, Oct. 12, 1872, relieved from duty at Fort Brady, Michigan, and ordered to comply with above order.

WATERS, W. E., ASSISTANT-SURGEON.—Assigned to duty in charge of Post Hospital, Fort Leavenworth, Kansas. S. O. 164, Department of the Missouri, Oct. 11, 1872.

HUNTINGTON, D. L., ASSISTANT-SURGEON.—Relieved from duty in Department of the East, and to report in person to the Commanding General, Department of the Columbia, for assignment. S. O. 248, War Department, A. G. O., Oct. 10, 1872.

DE GRAW, C. S., ASSISTANT-SURGEON.—Relieved from duty in Department of the Lakes, and to report in person to the Commanding General, Department of Texas, for assignment. S. O. 240, c. s., War Department.

GARDNER, W. H., ASSISTANT-SURGEON.—To accompany the companies of 6th Cavalry composing garrison of Fort Riley, Kansas, to that Post. S. O. 166, Department of the Missouri, Oct. 16, 1872.

COUES, ELLIOTT, ASSISTANT-SURGEON.—Assigned to duty as Post Surgeon at Fort Randall, D. T. S. O. 198, Department of Dakota, Oct. 19, 1872.

PHILLIPS, H. J., ASSISTANT-SURGEON.—To report to the attending Surgeon, Portland, Oregon, for medical attendance. S. O. 124, Department of the Columbia, Sept. 27, 1872.

LIPPINCOTT, H., ASSISTANT-SURGEON.—Granted leave of absence for six months, with permission to go beyond sea. S. O. 244, War Department, A. G. O., Oct. 7, 1872.

MONROE, F. LE. B., ASSISTANT-SURGEON.—To report in person to the Commanding General, Department of the South, for assignment. S. O. 240, c. s., War Department.

GIRARD, A. C., ASSISTANT-SURGEON.—Relieved from duty in Department of Texas, to proceed to New York City, and report by letter, on arrival there, to the Surgeon-General. S. O. 240, c. s., War Department.

YEOMANS, A. A., ASSISTANT-SURGEON.—Assigned to duty as Post Surgeon at Fort Sullivan, Maine. S. O. 194, Department of the East, Oct. 7, 1872.

MOFFATT, P., ASSISTANT-SURGEON.—Assigned to duty at Fort Leavenworth, Kansas. S. O. 162, Department of the Missouri, Oct. 5, 1872.

STYER, CHARLES, ASSISTANT-SURGEON.—Relieved from duty in the Department of the Missouri, to proceed to Philadelphia, Pa., and, on arrival, report by letter to the Surgeon-General. S. O. 240, c. s., War Department.

CORSON, J. K., ASSISTANT-SURGEON.—Relieved from duty in Department of the Platte, to proceed to Philadelphia, Pa., and, on arrival there, report by letter to the Surgeon-General. S. O. 240, c. s., War Department.

WEISEL, D., ASSISTANT SURGEON.—Relieved from duty in Department of Texas, to proceed to Baltimore, Md., and, on arrival, to report by letter to the Surgeon-General. S. O. 240, c. s., War Department.

COWDREY, S. G., ASSISTANT-SURGEON.—Leave of absence extended twenty days. S. O. 98, Military Division of the Missouri, Oct. 18, 1872.

REYNOLDS, FRANK, ASSISTANT-SURGEON.—Relieved from duty in the Department of the Columbia, to proceed to New York City, and, on arrival there, report by letter to the Surgeon-General. S. O. 238, War Department, A. G. O., Oct. 3, 1872.

SATURDAY, NOVEMBER 9, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON CERTAIN PAINFUL AFFECTIONS OF THE FEET.

BY S. WEIR MITCHELL, M.D.,

Physician to the Orthopædic Hospital and Infirmary for Nervous Diseases.

IT is one of the advantages of the custom of lecturing clinically upon groups of cases, that it enables the teacher to bring these into relations for which the more precise method of an essay would be unsuitable. What I am about to say will so fully illustrate my meaning, that I need not pause here to explain myself much more at large. It is often a good and practical mode of teaching which, viewing a collection of cases united in appearance by some common and prominent feature, finally traces this to its various causes, and points out how diverse are the ways in which disease has been acting in the several instances presented.

Those who have followed my clinics with care must have noticed, now and then, cases which were chiefly conspicuous on account of pain in some part of the foot, or in both feet. This, at all events, was what brought them before us; and very often pain, and pain alone, was the marked and dominant symptom. Most happily the cases to which I am now referring are rare; but, besides being rare, they are also difficult to relieve, and yet more difficult to cure.

The patient who is now before us has brought the whole subject anew to my memory, and it may be worth while to use his case as a starting-point from which to study some of the less common forms of pedal pain.

This I shall the more willingly do, because one class at least of foot-pains has not been treated of in the books, and when it first came before me, was altogether a novel malady, so far at least as my experience or my book-knowledge was concerned.

You will now and then meet with persons whose feet are too flat, and who, when walking far, feel a certain amount of aching, and a sense of excessive local fatigue. Something can be done for such sufferers by the aid of proper shoes and equable support to the sole; but the natural difficulty is in itself altogether incurable.

The lad who is here to-day offers also an example of severe pain, which in him accompanies almost every effort at locomotion. He is a robust, well-formed person, in a condition of body which appears to be exceptionally good.

After a youthful life of entirely good health, he engaged in a business which kept him much on his feet and caused him also at times great fatigue. After some months, each occasion of extreme overwork resulted in paroxysms of pain, which were at first limited to the right sole, but soon extended to the left. Somewhat later it was also felt in the front of the right leg. For a long while rest relieved him, but there came a time when the attacks of pain grew more and more protracted, so that much greater periods of repose were needed to secure complete ease. When, after some years of torment, this man entered the hospital, we found that it was only in the morning that he was clear of pain, and that he had slight spasmodic shortening of the tibialis anticus, the peroneus longus, and the gastrocnemius muscles, which under ether relaxed completely.

After a good deal of doubt and some differences of sentiment in our consultations, Dr. Goodman divided the tendons of these three muscles in both legs, and put the feet at rest in properly constructed apparatus. Great relief followed, and it is said to have been permanent. After a time there was still some annoyance in walking, but it was very much less than before. The pain seems to have been due to the steady strain at the points of insertion of the muscles implicated, a strain of course increased by the varying positions which the feet assumed during exertion.

A few months since, a similar case occurred in the practice of Dr. Goodman, in the person of a young woman, J. M., aged twenty-two; single and in good general health, but rather anæmic in appearance. When sixteen years old, she began to have pain after exercise in the left leg and foot, and the pain was accompanied by violent contraction of the peroneus longus, gastrocnemius, and plantar muscles; at times also the toes became strongly flexed, and in every instance there was pain, not alone in the shortened muscle, but also in the foot, which as time went by became deformed so that she walked on the outside of the sole, and could not bring the heel down, while the foot itself was too much laterally arched. At the time she was seen at this hospital the muscles acted spasmodically in walking, and the pain, which was quite steady, was much increased by such exercise. The bellies of the muscles concerned were sore after exertion, and it was clear to us that not only were the slight deformities due to the spasm of the muscles, but also that the pain felt was in some way related to the spastic manner in which they acted when influenced by volition. Irritations, mechanical or electrical, addressed to the sole, caused no unusual movements, but I found that the muscles at fault were singularly easy to act upon when faradized. When I questioned her closely as to the pain, she insisted that it was steady, that all exercise terribly increased it, and that the worst torment was due to a crampy pain which affected the intrinsic muscles of the plantar region, and contracted the inner side of the foot. This came on daily three or four times a day, and lasted from fifteen to twenty minutes. I found in this, as in the lad's case, no known cause for the disorder, despite an investigation of every organ. She was not examined under anæsthetics.

Two years ago an apparatus was put on her foot, and an effort made to correct its deformities without section of the tendons. The attempt to stretch the shortened muscles gave extreme pain, and was soon abandoned. After consultation, Dr. Goodman and

I decided to divide the tendons of the gastrocnemius and peroneus longus, as well as the contracted plantar fascia. The operation gave immediate relief, and enabled us to straighten the foot and bring down the heel. The spasm of the muscles ceased after the section of the tendons, and although she has at times some annoyance from pain in these muscles, it is not great enough, as it was before, to inhibit exercise.

Last spring I saw a child aged eleven years, who had had, the autumn before, a prolonged ague. Late in the winter, being then to all appearance in robust health, she began to have, when walking, sudden and violent contractions of the right gastrocnemius muscle, which lifted the heel off the ground just at the usual time, that is, at the end of the step, and also held it thus drawn up for a moment. The pain was in the body of the muscle, and was severe. After a minute or two it left as the contraction ceased, to return again in half an hour or less. These spasms kept the muscle sore, and had begun to shorten it permanently. The muscle acted under a faradaic current, which failed to stir its healthier fellow in the left leg. As the child was here but for a day, I wrote an opinion advising section of the muscle. Soon after this, a long illness —a remittent fever, I believe, followed by pneumonia—kept the child nine weeks in bed, and either the long rest or some other agencies, the offspring of disease, entirely cured the spasms, which I learned lately have not returned.

There is to me something most interesting in the study of these curious cases of local spasm. They belong to a wide class called by the French *contractures*, the type of which is seen in those remarkable instances where cold or rheumatism seems to be the remote cause of muscular spasms, which may in time pass away, or may end, as in a case now in the children's ward, in deformity of every mobile portion of every limb. At present they concern us chiefly in their relation to the feet. So far as my own experience in this direction has gone (and it is a rather large one), only those muscular contractions are very painful or permanently so which are persistent enough or frequent enough to alter the shape of the foot and to keep it so deformed. Thus, in the lad whom you have just seen, the spasms were enduring and frequent, and finally caused distinct, although not excessive, deformity, accompanied by a permanent shortening of the disordered muscles. Now, the pain in the muscles existed chiefly when these were in action; but there was also another pain which was present then and remained when the muscle was at rest, and this was found to lie at or about the insertions of the muscles in the foot. In this boy's case there was at the muscular insertions a little puffiness, and at times slight tenderness. These latter symptoms do not always attend upon contractures elsewhere, or even constantly in those which affect the foot. Thus, in a remarkable example of "functional spasm," as I should like to call it,—that is, a spasm which is seen in a muscle when executing an ordinary action,—there was never any pain either in the muscle, although it was somewhat shortened, or at the point of insertion.

Neither in the case of J. W., aged twenty-nine, who was here in December last with a permanent contracture of the biceps, was there pain, save in the elbow and in the muscular mass. What now I most wish to point out is this: that there are rare cases of obscure pain in the feet which seem to be related to contractions of muscles, and that a close study of the case will often show a slight shortening of the muscles and more or less deformation of the foot. Cases of this kind must, I presume, be rare, because, although we see in this building a multitude of deformities of the feet, it is uncommon to find the part painful, no matter how great is the attendant contraction of muscles, no matter how widely the members have departed from the forms of health. Let me add, however, that nearly all of our deformed cases are children, or persons who acquired their disease in childhood, and that two of the three cases I have described were in adult life when their trouble began. In such persons the forms of parts offer greater resistance to change, are no longer plastic, and consequently suffer when subjected to such steady strains as tend to cause displacements. On some other occasion I hope more fully to discuss the various forms of contractures, but at present I have only so far dealt with them as to point out that in certain cases they seem to cause obscure forms of pain in the feet.

(To be continued.)

SIMPLICITY IN THE CLASSIFICATION OF TUMORS.

SYNOPSIS OF A LECTURE DELIVERED AT THE UNIVERSITY OF PENNSYLVANIA, OCT. 26, 1872,

BY DR. JAMES E. GARRETSON.

THE lecturer commenced his discourse with the suggestion that the histological distinctions of tumors were of little clinical import, and while of profound and most enticing interest to the student of histogeny, yet were of such little matter in practical surgery that he was oftentimes led to doubt whether one might not get along with much less confusion to the subject of diagnosis, without, than with, them. As the subject had presented itself to his experience and his judgment, he said, "'Tumors divided themselves, not into a multitude of classes, but simply into two; these two he would designate 'the explainable' and 'the non-explainable.' In the first of these classes was to be placed every tumor having in itself that which explained its presence, examples of which existed in the sebaceous tumors, the herniæ, ranulæ, etc.; in the second belonged, without distinction, saving the parasitic, all that remainder the explanation of which has to be sought outside of a local condition; examples in the latter directions being recognized in the nodes of syphilis, the degenerating glandular enlargements of tuberculosis, the multitudinous expressions of cancer."

All tumors of the first class, the lecturer suggested, were in themselves necessarily benign; all of the second class were to be viewed, not in themselves, but in the dyscrasia of which they were to be es-

teemed simply expressions. As an illustration in diagnosis, the following was offered: "A patient presents himself to a surgeon, having a tumor in his groin. What is the nature of this tumor? It might have the local signification of a hernia; of an undescended testicle; of a hydrocele of the spermatic cord; of an inflamed lymphatic gland. It might have the constitutional explanation of syphilitic or tuberculous bubo. It might be a cancer. To satisfy himself of the particular condition represented, the surgeon may only proceed as follows: First, he must recall the anatomy of the part. In the groin of the human male is a canal,—the inguinal canal. This canal is entered by a ring from the abdominal cavity, and has an outlet in a second existing in the aponeurosis of the external oblique muscle. In this canal lie, enveloped in a sheath, the spermatic vessels; this canal constitutes the passage transmitting the testicle from the abdomen to the scrotum. The entrance to this canal may permit the insinuation of a knuckle of omentum or intestine. In this inguinal region exist a number of lymphatic glands. This then is the anatomy, and these are the data. Is the tumor a hernia? There is no impulse on cough; no doughy feel; no diminution in size when the patient lies down; no ability to thrust the tumor into the abdomen; no enlargement of the inguinal rings. The tumor is not a hernia. Is it an undescended testicle? The testicle is to be felt in its place in the scrotum. The tumor is not a testicle. Is it a hydrocele of the spermatic cord? There is no fluctuation on percussion; no ability to change the position; no fluid as test is made with the exploring-needle or suction-syringe. It is not a hydrocele. Is it an inflamed gland of a local inflammatory signification? It has no such history. The tumor, then, is not of immediate signification; this it would seem we must know to a certainty. By exclusion, then, such a tumor is exhibited as belonging to the second class. The only question now is as to the vice represented. Syphilis and tuberculosis have a history. If such history does not exist, then a final exclusion pronounces the condition—whether rightly or wrongly need not just here be discussed—cancer. "May it," suggested the lecturer, "be implied that the tumor might be a fibroma or a sarcoma? We are not clinically to trouble ourselves about any such distinctions, for we are prepared to affirm that between such tumors distinction is seeming and not real; but it is urged that these do not kill, yet that carcinoma will. If such objection be abandoned, it may be admitted; but it has an explanation which is easily made evident. There is, we say, but one non-explaining vice; this vice puts on various phases. These phases are influenced by the malignancy of the poison, or by relation with the condition of the individual into whose system it has found ingress. This we may illustrate by an example. Four men go from a healthy to a malarious district; all live in the same house, and all are impregnated with the same poison. In a week one succumbs to a quotidian; in two weeks the second has a tertian; in three weeks the third dies from a congestive chill; while the fourth, preserved by an inherent resistive force, antagonizes the miasma entirely. Thus also in the cancer-vice: one man, either from the concentration of the virus, or from the absence of antagonizing power, dies quickly from a medullary expression; while another maintains a tumor for years in the condition of a simple sarcoma, succumbing finally in the battle, which, by the accident of some loss of resistive force, gives a mastery to the abeyant vice, the sarcoma being quickly degraded into that which the microscope has distinguished from it as carcinoma. The premise is to be maintained that any and every tumor which cannot be proved benign is to be deemed malignant. A self-explaining tumor expresses its own name; a non-self-explaining tumor demands from us no special regards for the distinctions of nomenclature, except as in an adjectival way these distinctions classify, for convenience in description, what are to be regarded as varying expressions of a common disease.

"Might it," said the lecturer, "just here be asked if no distinctions are to be made between the fibromata, the myomata, the myeloid of Paget, etc., because of its being the case that these have in themselves no more explanation of their appearance than have the carcinomata? Clinically it is to be affirmed that no surgeon lives who, upon the living subject, or upon the dead one either, has as yet been able to draw at any exact point a line of distinction between these growths and what histology denominates cancer; but I will not declare," said the lecturer, "that there is no such line. I hasten, however, to assert that if there is, it is my misfortune never as yet to have met with the practitioner who seemed able to map it off. Look, however, at the matter for yourselves.

"*First.* Fibrous Tumors — Fibromata. — The study of the fibromata begins with—1. Tumors which to the eye are composed of firm, interlaced fibrous tissue, and are, to the touch, hard, yet to an extent elastic. Such growths spring from the periosteal tissue, and find a favorite location in the maxillary antrum. When unmoulded, as when springing from a free surface, they are superficially lobed, and, as a rule, are ovoid in form; when occupying the sinus, they conform very much to the shape of the cavity, and are apt to retain their bony covering until they attain a size much greater than the site from which they originate. In color, these tumors are a faintly yellowish white, pure white, or a very pale red; in arrangement, the fibres are concentrically related, affording an expression of concentration, as if growing toward, rather than from, a centre.

"The diagnosis of this form of the fibromata lies in the isolation of the growth; in its elastic hardness; in the perfectly healthy and non-implicated appearance of the associate parts; in the absence of pain; and in the tardy growth. Such tumors are to be removed with an almost positive assurance of non-return.

"2. A second form of the fibromata is found in such close alliance with the first that no one might doubt the intimate relationship of the two, differing really alone from the first in the presence of a looser stroma, being what Rindfleisch, in his classification, would term 'a connective-tissue tumor'

This tumor, or rather this expression of a common tumor, has not the same concentric development, seeming, in this respect, to be less resisted by the neighboring parts; it does not infiltrate, but yet is of eccentric rather than concentric growth; or, if not this, then the fibrous relation is irregular. This is the first expression of the fibroplastic tumor of Lebert.

"3. The myomata of Virchow. Advancing one step farther in the appreciation of the fibromata, we meet with those spindle-shaped cells, which induced Virchow to give to the expression the name of myoma, and which, when possessed of more marked characteristics, constitute the fibro-sarcoma of Rokitansky. This is the fibro-recurring tumor, an expression of which Mr. Miller speaks—'as of a tumor ill defined, one which it may be doubted if it is not more properly classed when placed among the malignant conditions, seeing they are found prone to return, after excision, with singular obstinacy.'

"The eccentric fibrous tumor—fibro-plastic, fibro-recurring, myoma, fibro-sarcoma—presents alterations of structure, from which, at a point unknown to your lecturer, it passes into classification as sarcoma.

"*Second.* SARCOMATA.—The sarcomata are so called from presenting on section a fleshy look. A pure myoma would be alone the sarcoma, if by flesh-like was meant muscle-like; but by flesh-like has not been meant muscle-like; hence to say what is not a sarcoma, is with all writers merely an approximation. With such confusion our classification happily enables us to dispense. A sarcoma is what it is now designated by Billroth,—'a tumor consisting of tissue belonging to the developmental series of connective-tissue substances (connective tissue, cartilage, bone), muscles, and nerves, which, as a rule, does not go on to the formation of a perfect tissue, but to peculiar degenerations of the developmental forms;' in other words, it is an expression of the fibromata. Rindfleisch distinguishes the sarcomata into 'the round-celled sarcoma, the spindle-celled sarcoma, and the fibroma.'

"Another expression of this tumor is that classified and described by Mr. Paget as the myeloid,—so called from a resemblance to marrow,—an expression so lacking a persistent individuality that, even according to the classifier himself, such tumors vary from simple semi-fibrous, semi-marrow-like structure to those so heteroclitic that they seem to merge into the medullary."

Discussing the subject with large latitude, the lecturer resorted to the blackboard to demonstrate that the very highest expression of practice in the direction consisted in accepting and treating as cancer that which could not be shown not to be cancer. As an illustration, the epulides were used; four tumors of this class being shown to have in themselves explanation of their origin and local nature; while apart from these four, the lecturer insisted, no single one, whatever its histological quality, might have explanation given for its presence, and was, therefore, to be treated as the expression of a vice; that any and every one of the epulides, apart from the four described, was treated to the greatest good of the patient when it was viewed as cancer; and, this being admitted, that to know the four of self-explaining signification, was necessarily clinically to know all the rest; at any rate, was to know what best to do for them, which, after all, was the matter which most concerned the usefulness of a surgeon to his patient.

In giving this synopsis, we would not be understood as having repeated the lecture with any fulness. The subject was discussed in proportion to its length and depth, and if histology was denied importance of position, histological aspects, particularly those pertaining to the histoid mixed tumors, were elaborated with all care,—being employed, however, to show what seemed to the lecturer the weakness, rather than the strength, from the clinical aspect, of any classification so founded.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR S. D. GROSS, M.D.

Reported by FRANK WOODBURY.

LATERAL OPERATION FOR LITHOTOMY.

THIS man, thirty-eight years of age, has suffered for years with an aggravated irritation of the bladder. He is troubled with frequent desire to pass his urine, which is small in quantity, and when flowing stops suddenly, with a painful sensation extending through the bladder and adjacent parts. His appetite is poor; he has some dyspeptic symptoms, and his bowels are constipated; he is losing flesh, and his health generally is below par.

These symptoms might be produced by a vesical calculus. The characteristic sign is that sudden check to the flow of the urine, which he complains of, which might be produced by a foreign body, such as a stone, which, being movable, would naturally be washed by the water to the neck of the bladder, and there act as a valve obstructing the current. We have a means, however, of determining this positively, and of feeling and hearing a stone, if one exists, by means of an instrument termed a sound. This I have used in the present case, and have found that there is a large stone in the patient's bladder. We should make it a rule, in proceeding to cut a patient for stone, to pass the sound and find the stone at the time of operating. Although all the rational signs are present, unless we can obtain this evidence before operating we should defer the case until another occasion, no matter how positive we are that we have felt and heard it on previous examinations. By neglecting this precaution many patients have been subjected to the pain and perils of lithotomy, in whom after the operation no stone could be found. Many cases of this kind are on record. The greatest care should be exercised in sounding the patient, and this should be repeated on successive occasions, until absolute certainty is attained as to whether a stone exists or not. Cases occasionally happen where all the symptoms are present, but no calculus can be discovered; or a stone may really exist, yet the surgeon be unable to detect it by any means at his command. This might occur in a case of sacculated bladder, where the concretion is encysted in a fold in the mucous lining,

or it might be hidden in the cul-de-sac at the bas-fond of the bladder, behind the prostate gland.

Sounding enables us to ascertain positively the existence of a stone, and gives us an idea of its size, situation, and character; whether smooth or rough, solitary or multiple. The instrument used is generally made of polished steel, and comes in sets of varying curves and different sizes, of about twelve inches in length. The instrument is warmed and oiled, and introduced as an ordinary catheter, allowing it to glide along the urethra by its own weight. The patient's rectum should be empty and his bladder about half full of urine at the time of the examination, which should be conducted with the patient supine in bed, with his thighs and knees flexed and well separated. The sound will frequently encounter the stone immediately on entering the bladder; otherwise, it must be moved around in various directions. When the stone is suspected of hiding behind an enlarged prostate, the forefinger may be introduced into the rectum, so as to push up this portion of the bladder. If the examination is attended with much pain, or the patient is a child, an anæsthetic may be given. Many years ago a French surgeon invented a little circular sounding-board, which is attached to the handle of the sound, whereby the peculiar "click," made by the instrument striking the stone, is made more evident and distinct. The patient's system should be in a manner prepared before the sound is introduced. In case he comes from a distance, he must perfectly recover from the fatigue of the journey. From a neglect of this, much suffering has been produced. Paget records six cases where death ensued from a mere sounding for stone; the procedure, therefore, is not without risk to the patient.

Vesical calculus is rare in the female, probably because the shorter and more capacious urethra allows prompt excretion to many deposits that under other circumstances would form concretions. From the statistics of the affection, it is also seen that negroes are not so liable to this disease as the white race. Drinks of certain kinds, such as cider, have been known to produce this disorder, which is also very prevalent in limestone regions, although not exclusively confined to them. Food also exercises an influence over calculous deposits, and the poor are more frequently attacked than the rich. Gout and rheumatism frequently are accompanied by the formation of the variety known as the uric acid calculus. The growth of a stone is generally slow, and extends frequently over a series of years. It has its origin most frequently in the kidney, from whence the ureter conveys it to the bladder; or a foreign substance, introduced through the urethra, may be the nucleus of the concretion; or it may even originate in the bladder itself, by deposit from urine which is unusually rich in the earthy constituents.

These calculi are of different chemical composition. The most common variety is composed of uric acid; the next in frequency is the oxalic calculus, which consists principally of oxalate of lime; then follow the triple phosphate, the ammoniaco-magnesian, the cystic, fusible, and xanthic; the latter being extremely rare. The oxalic variety is hard and tuberculated, and hence is sometimes called the mulberry calculus; it is always single, except when very small and smooth, when it is generally multiple, and receives the name of the hemp-seed calculus.

This body in the bladder keeps up a constant irritation and inflammation of the mucous lining, producing all the symptoms of cystitis. Hypertrophy of the walls of the organ with diminution of its capacity may result, or the calculus may ulcerate through, producing extravasation of urine and threatening life. Or the stone may remain and gradually increase in size, causing organic disorder of the urinary organs, producing much suffering to the patient, and finally death will ensue from hectic irritation.

When the stone is very small, it may be extracted through the urethra; or, if of medium size, it may be crushed by the operation of lithotrity, and the fragments removed through the same channel; but when of large size the safest and best means of removing it is by the operation of lithotomy. This is performed either by the lateral, bilateral, or median incision. The lateral operation is the one I prefer, and generally perform. The patient requires a certain amount of preparatory treatment before being subjected to the risk of an operation. Rest and a light diet for a few days are essential. Castor oil is administered the evening before operating, so as to empty the bowel, or it may be cleansed out by an enema. The rectum must be thoroughly evacuated, because, otherwise, it would be in the way, and might be accidentally cut, producing a recto-vesical fistula, at once the most intractable and one of the most disgusting affections that ever made a patient miserable for life. It would be better to let him die under the operation than by such an affliction to render him perpetually obnoxious both to himself and those around him.

Never commence the operation with the patient on a bed, as it is entirely too low. He must be placed on his back, upon a table, with his buttocks brought to its edge, as soon as the anæsthetic has produced its effect. The patient's bladder must be partially full of urine at the time, in order to facilitate finding the stone, which will probably be brought down with the gush of urine as soon as the orifice is made. A staff is then passed into the bladder, having its handle inclined towards the right groin of the patient, and held by an assistant, who also holds the scrotum out of the way; two other assistants hold the limbs widely apart, with the thighs and knees firmly flexed. The operator then takes his position in front of the patient. I prefer to kneel on one knee, as being the most convenient. The left forefinger is inserted into the rectum to hold it up and induce its contraction, and render the integument of the perineum tense. The left side is generally chosen as most convenient for the right hand of the operator. The knife is then introduced a little to the left of the raphé, about an inch and a quarter in front of the anus, and the incision carried obliquely backwards, about three inches, to a point half way between the tuberosity of the ischium and the anus. The tissues are torn and picked away until the urethra is found at the bottom of the wound. The knife is then thrust into the membranous urethra and run along the groove of the staff into the bladder, in its passage partially dividing the neck of the organ and the left lobe of the prostate gland. The urine then gushes out, and the stone is readily found and extracted with the scoop or lithotomy-forceps. If the stone is very large, it may be crushed and removed piecemeal, in preference to enlarging the opening. The bladder is then immediately washed out with a syringe and tepid water, to remove all the fragments that might otherwise form nuclei for fresh growths. Any bleeding vessels are tied after the operation. The wound will afterwards fill up with granulations, and the urine resume its natural channel.

[This operation was performed as described. The stone was quite large, and so soft as to break in several pieces when grasped by the forceps. The wound was plugged with styptic cotton, and the patient conveyed to his bed, which had over the lower half of the mattress a large piece of oil-cloth placed, covered, for the purpose of absorbing the urine, by a folded sheet, called the draw-sheet, which was frequently changed. A full dose of morphia was given immediately after the operation. The patient recovered sufficiently to leave the hospital at the end of the eighth week, and returned

home to the country perfectly relieved of the symptoms that had given him trouble for so many years.]

SYPHILITIC DACTYLITIS.

This is an affection that by some is thought to be extremely rare, but which is often seen at this clinic, and is referred to in my "Surgery" as being sufficiently frequent. It is known as syphilitic panaris or dactylitis syphilitica. It attacks one or more of the fingers, and consists of a deposit of the gummous matter peculiar to syphilis, both under the periosteum and in the structure of the bone itself, which becomes softened and expanded to many times its natural size. It occurs generally in children before the seventh year, in whom it is produced by inherited syphilis.

This little colored boy, two years and six months old, was unfortunate enough to have his hand trodden upon, a year ago, which resulted in this disease of the metacarpal bone of the thumb. But this result could not have ensued if this taint were not in his system. His mother states that she has had four children, who are all dead except this one, and she has miscarried several times. His father also is not healthy. The child's system needs invigorating. He shall have a salt bath every day, and his diet shall be carefully regulated, so as to consist only of the most nourishing food. A piece, the size of a walnut, of unguentum hydrargyri, may be rubbed on the inside of his thighs every second day. An emollient poultice may be applied to the affected finger.

[This case, and the one preceding, appeared at one of the clinics of the auxiliary course, during the summer.]

NECROSIS OF THE TIBIA.

This boy, ten years of age, has had a disease of his right tibia for six years. We notice a deformity in the limb; the bone is enlarged throughout its entire extent, and bent forward in the shape of a bow; this was caused by the constant pressure of the body in walking upon it, when the bone was softened by disease. There are two sinuses, from one of which a large portion of dead bone protrudes. The discharge is thin, ichorous, and sometimes sanguinolent, bearing no resemblance to healthy pus. We find the fibula perfectly natural and unaffected.

The first indication is to remove the dead bone, which we can readily do here by enlarging the opening slightly, and extracting this large sequester with the forceps. We next carefully scrape the walls of the cavity, removing all the disintegrated carious structure, unhealthy granulations, and cacoplastic lymph, which would interfere with healthy repair. Then wash it out with the syringe and cold water. Granulations will spring up, bone will be deposited, and the wound heal; but there will be no reproduction of the medullary canal, and the bone will never regain its natural weight, being always a little heavier. This bend in the bone it is too late to remedy. After the operation the limb shall be wrapped in a weak solution of acetate of lead. We will not prescribe for him, as he is under the care of a physician who brought him to the clinic.

This disease is strumous in character; in other words, it is a late outgrowth of syphilis. In its early stages the pain is generally acute, depriving the patient of sleep and appetite, and producing severe constitutional effects. Where this predisposition exists, the affection comes on from the slightest causes, such as a blow on the part, or suppression of the cutaneous perspiration, or may even occur without any assignable cause. The disease is cowardly, and attacks the least defensible spot in the patient. We may assume that this tibia was the weakest part of this boy's frame, being weak by inheritance. Whether it commenced in the bone or periosteum first, it is impossible to say, because they are both implicated in the subsequent morbid action.

A NEW RULE FOR DOSES.—Dr. E. H. Clarke (*Boston Medical and Surgical Journal*, September 26, 1872).—The doses, given in works on materia medica for the administration of medicines, are intended for adults of average health and strength. These average doses are of course varied by the physician, when prescribing, so as to suit differences of age, disease, sex, temperament, idiosyncrasy, and the like. Of the various modifying circumstances that affect the dose, age has always been recognized as the most important, as it is the most obvious one. Several schemes or rules, intended to aid the memory in apportioning doses to different ages, have been proposed. Two are commonly referred to as the best. Both of them are familiar, and both may be found in the United States Dispensatory.

The first is the table of Gaubius, according to which the dose of an adult being one, or one drachm, that of a person from

14 to 21 years will be $\frac{2}{3}$ or 2 scruples.
7 to 14 " " " $\frac{1}{2}$ drachm.
4 to 7 " " " $\frac{1}{3}$ or 1 scruple.
At 4 years old, the dose will be $\frac{1}{4}$ or 15 grains.
At 3 " " " " " " $\frac{1}{6}$ or 10 grains.
At 2 " " " " " " $\frac{1}{8}$ or 8 grains.
At 1 " " " " " " $\frac{1}{12}$ or 5 grains.

Dr. Young's rule, extracted from the Pharmacologia of Dr. Paris, is generally preferred, on account of its simplicity, to the table of Gaubius. It is this: "For children under twelve years, the dose of most medicines must be diminished in the proportion of the age to the age increased by twelve; thus, at two years to $\frac{1}{7}$: viz., $\frac{2}{2+12} = \frac{1}{7}$. At twenty-one the full dose may be given."

Physiological experiment has shown that the weight of animals is not only as important an element in apportioning doses of drugs as age, but is probably a more important one than that. Thus, Dr. Fraser, of Edinburgh, in his recent admirable monograph on physostigmia and atropia, has shown that the minimum lethal dose of sulphate of physostigmia for rabbits is 0.04 grain for every pound. M. Claude Bernard has called attention to the fact that in physiological experiments with drugs on animals, the dose should vary with the weight of the animal. Clinical observation shows that men in this respect are not unlike other animals; and that in the administration of remedies, the dose should vary with the weight of the patient in order to obtain the best therapeutical result. Guided by this principle, it is easy to give a rule for doses that is more exact and more easily remembered than the table of Gaubius or the equation of Dr. Young.

Assuming the average weight of an adult to be one hundred and fifty pounds, for whom an appropriate dose is one or one drachm, the dose of most medicines must be increased or diminished in the proportion of the weight of the patient to that number of pounds. This proportion is represented by a fraction, whose numerator is the patient's weight and whose denominator is 150. If a child at birth weighs six pounds, the appropriate dose for it would be $\frac{6}{150}$, or $\frac{1}{25}$; if it weighs ten pounds, $\frac{10}{150}$, or $\frac{1}{15}$. A child two years old, weighing twenty pounds, would require $\frac{20}{150}$, or about $\frac{1}{7}$ of an adult dose; or, more precisely, $\frac{1}{7\frac{1}{2}}$, which is exactly halfway between the quantity indicated by the table of Gaubius for a child two years old and that indicated by Dr. Young's scheme for the same age. A person whose weight is two hundred pounds should have $\frac{200}{150}$, or $1\frac{1}{3}$ of an average adult dose. A child twelve years old, weighing 75 pounds, would require $\frac{75}{150}$, or $\frac{1}{2}$ of an average dose.

The modifications of the average dose, demanded by a patient's idiosyncrasy, disease, and other conditions than age or weight, are not, of course, met by the above rule.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, NOVEMBER 9, 1872.

EDITORIAL.

PHYSICIANS' FEES.

THE medical profession stands to the public in a double relation; on the one hand, as business men, we have a commodity to dispose of,—our medical skill; on the other, as humanitarians, we have an ability to relieve some of the inevitable woes of our race. Very few men, rich or poor, go through life without at some time urgently needing the advice of the physician; and this need is one universally recognized as imperative. A man may have to forego his rights because he cannot afford to employ a lawyer; no man must languish or perish with disease because his purse is light. We believe it will not be disputed, that the gratuitous services rendered by physicians at the demand of the public are far greater than those asked of any other set of men. And this has had the effect of developing our humanitarian relation to the community at the expense of our business interests.

We hold that our services have a market value, variable, but still actual. It is the difficulty of determining this value, the impossibility, indeed, that makes fee-bills and scales of charges so unsatisfactory. Shall the visits of yesterday's graduate be paid for at the same rate as those of the man who has given half his life to the study of disease? Is a visit a visit, no matter whether the case be one of trifling indigestion or of the gravest typhoid? Shall "the passing of a catheter" be worth just so much, no matter whether the operation is so easy that a child might do it, or so difficult as to demand the utmost dexterity for its success?

We have said enough to show how unsatisfactory and even how useless must be any action taken by the College of Physicians of Philadelphia in regard to the proposed changes in the fee-bill for this city. Every one knows that this matter is in agitation; and almost every one knows that a suggestion to abolish the fee-bill entirely, made a year or two since, was negatived. A sliding scale we are told we cannot have. Hence the only plan is for the College to again establish a sort of average tariff of charges.

Whether physicians shall adhere to this scale or not, in making their charges, each must determine for himself. We believe it would be far better for the older men, and those of special reputation and large business, to raise their fees,—to make more money by less arduous work. And in doing this, we do not think they would sacrifice one iota of the honor or delicacy of our profession. The highest possible authority has said, "the laborer is worthy of his hire."

THE WELLS NATIONAL TESTIMONIAL FUND.

AS many of our readers are aware, a fund is being collected for the benefit of the family of Dr. Horace Wells, who deserved at least a share in the credit of the discovery of the artificial production of anæsthesia. There has always been some doubt whether he was not really the experimenter who first laid the foundation for this vast benefit to suffering humanity; and this doubt ought to be enough to secure for his family, now in very narrow circumstances, the liberal aid of all who have seen or felt the value of the boon which he helped to confer. We trust the appeal will meet with a hearty response from his countrymen.

Contributions may be sent to the Treasurers of the Fund: W. R. Vermilye (Vermilye & Co., Bankers, Nassau Street, N.Y.); Samuel S. White, D.D.S., Twelfth and Chestnut Streets, Philadelphia; or by the special collector for Philadelphia, S. B. Merkle, M.D., care of Major S. T. Pratt, 7 and 8 Ledger Building. Checks or money-orders are preferable for all sums over five dollars.

WILLS HOSPITAL LECTURES.

A VERY valuable course of instruction in ophthalmology, combining the didactic with the clinical, is projected at the above institution for the months of November, December, and January. Dr. Levis takes charge of the Operative and Clinical Sur-

gery of the Eye; Dr. Harlan, of the Anatomy of the Eye, Accommodation, and Ophthalmoscopy; Dr. Dyer, of the Physiology of Vision, Refraction, and General Diseases of the Eye.

It would be difficult to overestimate the advantage of such a series of lectures and demonstrations to the student, the recent graduate, or the country practitioner.

CORRESPONDENCE.

COOL.

To the Editor of the Philadelphia Medical Times:

DEAR SIR,—My friend Simkins has a large practice,—forty patients daily,—so he says. In the summer, when the mercury shows a tendency to reach 100° in the shade and hold fast to it, Simkins, my friend, feels that his health demands a sojourn at the sea-shore, where, curiously enough, most of his patients take quarters. Before taking his departure, however, he drops me a hasty note, as follows:

"My dear Timkins,—Off to the shore to-day; have left my patients in your charge. Keep cool. Good-by.

"Yours,

"Simkins."

I, Timkins, being an humble practitioner, with one patient daily, feel the immense responsibility of having Simkins's patients under my charge, and, perspiring day and night in performing his duty, destroy shoe-leather, and expend car-fare, narrowly escape an attack of heat-fever, toil and boil for my friend Simkins's patients.

The season ends; the mercury falls, and I receive another note from my friend Simkins:

"My dear Timkins,—Home again. Please send me, at your earliest convenience, a list of the visits made. Hope you have kept cool. Thanks for the work you have done for me.

"Yours,

"Simkins."

I am cool now, Mr. Editor; cool to my friend Simkins.

Yours, obediently,

Timkins.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday Evening, September 12, 1872.

The President, Dr. J. H. Hutchinson, in the chair.

DR. O. H. ALLIS presented a specimen of *aneurism of the ascending aorta*. The specimen was referred for description to a committee consisting of Drs. Harrison Allen and W. W. Keen, who reported as follows:

"The committee appointed to examine the specimen of aortic aneurism presented by Dr. Allis, Sept. 26, beg leave to report:

"That the aneurism involved the ascending portion of the arch alone, *exclusive* of the bulb. None of the cardiac valves were diseased. The aorta was exceedingly atheromatous beyond the aneurism. The walls of the sac consisted of the dilated aorta and the condensed surrounding tissue. Its relations to the pericardium, as the specimen exists, we were unable to determine. The pulmonary artery was not compressed. The contents of the sac consisted of a very large mass of laminated fibrin, and on the internal surface a considerable amount of clotted blood.

"The effects on the sternum, the ribs of the right side, and intercostal spaces, were as follows:

"The sternum was eroded at the right border in the third intercostal space.

"The third rib was pushed up and eroded in its under surface at one point.

"The fourth rib was pushed forward, greatly eroded on its upper surface, so as almost to be fractured at one joint. On its under surface were a number of osteophytes.

"The fifth rib was eroded on its upper surface, but not pushed down.

"The third and fourth intercostal spaces were greatly widened: the third by the erosion and lifting of the third rib, narrowing the second space; the fourth by the simple erosion of the fifth rib, the fifth intercostal space being normal."

Dr. H. C. Wood exhibited a section of a portion of the femur from *a case of rheumatoid arthritis*, in which the *medullary cavity was wholly occupied by cancellated tissue*. The patient was a woman aged twenty-three years, who died of shock after the operation of opening an abscess.

Dr. W. Pepper regretted that a larger portion of the bone had not been examined, so as to ascertain if some traces of a medullary cavity did not exist higher up. As to the precise nature of the process by which the place of this cavity was still occupied by the cancellous tissue, it appeared to him unlikely that it had been purely one of the formation of new cancellous tissue. According to his own observations upon the production of cancellous tissue in cases of hyperostosis, there will usually be found traces of new-formed layers of compact bone, which has undergone a more or less marked consecutive conversion into cancellous tissue. In the present specimen, on the other hand, the tissue occupying the centre of the shaft was apparently identical and directly continuous with the normal cancellous tissue nearer the periphery.

Dr. James Tyson presented a specimen of *cirrhotic or "hobnail" liver, unusually small*, removed from M. T., intemperate, aged fifty-six, who was admitted to his ward in the Philadelphia Hospital August 8, 1872, and died September 18. On admission he was the subject of anasarca of the lower extremities, marked ascites, and hydrothorax. There was a faint mitral murmur. The urine was scanty, but contained no albumen.

Tincture of chloride of iron was freely administered, and one-eighth of a grain of elaterium given every other day, which produced large watery evacuations from the bowels, but was discontinued on account of the prostration resulting. Two weeks before death, paracentesis abdominis was performed, and two hundred and forty ounces of fluid drawn off. Later, obstinate nausea and vomiting supervened, and he died with symptoms of dyspnœa.

The post-mortem examination revealed large quantities of fluid in the pleura, pericardium, and peritoneal sac. The liver was a beautiful example of a "hobnail" organ, less than half the normal size and weight. The spleen was pultaceous and considerably enlarged. The other organs were healthy.

Dr. WILLIAM PEPPER exhibited a specimen of *thread-like worm* said to have been passed by a Texan boy. The worm was referred to the Committee on Morbid Growths, who reported it to be a specimen of a male *Gordius aquaticus*, or horse-hair worm, of chestnut-brown color, a foot in length, a little more than half a line in breadth, with bifid caudal extremity.

Dr. J. EWING MEARS presented a specimen of *villous cancer of the vagina*, removed from a patient forty-two years of age.

The attention of the patient was first directed to the growth by the occurrence of a severe hemorrhage, in June last. This has recurred at varying intervals, and has produced much prostration from the loss of blood.

On making a vaginal examination, the growth was found occupying the posterior wall, about the junction of the upper with the middle third. It consisted of a villous or dendritic mass about the size of a small orange, and was excessively vascular. It appeared to surround an opening or depression into which the finger could be introduced. Rectal examination failed to discover that there was any communication established between it and the vagina. The growth was removed by the scissors, and the part cauterized.

Dr. MEARS thought it belonged to the third form of villous cancer described by Rokitansky, in which "the flask grows with considerable dilatation into a stem, which gives off branches which do not ramify further, but break up into a great number of flask-shaped sprouts."

Dr. JOHN S. PARRY remarked that *villous cancer* in this situation was very rare in his experience; that it usually affects the os uteri; and, indeed, that primary cancer of the vagina is rare in any form.

Dr. MEARS said that he had suspected there was disease of the rectum in this instance, and that he had therefore examined it, but was unable to detect any.

Dr. H. LENOX HODGE remarked that his own experience coincided with that of Dr. Parry. He remembered to have seen only two cases of cancer of the vagina, one of villous cancer beginning with the os uteri, and a second of epithelial cancer, much lower down, and involving the lower part of the rectum, with ulceration so that the two passages freely communicated.

The specimen was referred to the Committee on Morbid Growths, who reported:

"The tumor from the vagina, presented by Dr. Mears, is a carcinomatous papilloma, or 'Zottenkrebs' of the Germans. The papillæ of the dendritic growth have each a frame-work of connective tissue terminating in a nodular-like expansion, with similar processes from the sides. In it are found broad and very thin-walled blood-vessels. The papillæ are covered by several layers of simple cylindrical epithelium." A section of the tumor prepared by the committee was placed under the microscope, from which a very clear idea of the structure of the growth was obtained.

Dr. J. EWING MEARS presented a specimen of *scirrhus of the mammary gland*, removed by him from a patient aged thirty-seven years.

The tumor was first observed eight months since, when it existed as a freely movable firm mass, about the size of a hen's egg, occupying the superior portion of the left mamma. At that time the health of the patient was good, although she suffered from the characteristic pain accompanying these growths. Extirpation of the tumor was advised, but the consent of the patient could not be obtained. She was then placed upon arsenic, with the view to arrest the further development of the tumor. Notwithstanding its persistent use, the tumor increased greatly in size, the health of the patient declined, and the symptoms became quite aggravated in character. A gland of the axilla was slightly enlarged; it did not appear to be cancerous, and was therefore not removed.

The tumor, with the entire gland, was removed in the usual manner.

Dr. MEARS also presented the *heart, kidneys, portion of liver and intestines*, from a case of general fatty infiltration and degeneration. There were the symptoms of Bright's disease before death, and the kidneys were highly fatty, but not more so than the other organs.

REVIEWS AND BOOK NOTICES.

HAND-BOOK OF COMPOUND MEDICINES; OR, THE PRESCRIBER'S AND DISPENSER'S VADE-MECUM. By ARNOLD J. COOLEY, Author of "Cyclopædia of Receipts," etc. Small 8vo, pp. 219. Philadelphia. J. B. Lippincott & Co.

This little volume is divided into two portions; the first being devoted to "pills, boluses, globules, grains, and granules," and the second to "mixtures." In each the preparation, formulæ, doses, leading uses, and synonyms of the various articles are given, and, as it seems to us, with great conciseness and accuracy. Although prepared in a London pharmaceutical atmosphere, and intended for English use, such a book cannot but be valuable to physicians everywhere, presenting many and varied combinations, and in this respect embodying the results of experience gained in the public and private practice of the British metropolis.

NORMAL OVARIOTOMY. By ROBERT BATTEY, M.D. From the *Atlanta Medical and Surgical Journal*, Sept. 1872.

This pamphlet consists mainly of a detailed account of a case in which the author performed, upon a young lady aged twenty-three years, the removal of both ovaries, *which were normal in condition*, with a view, says he, "to establish at once the 'change of life.'"

It calls to our mind a story of a somewhat distinguished French surgeon (Delpech, if we mistake not), who removed both testicles for purely functional disease, and was assassinated in his carriage by his patient a few years later.

GLEANINGS FROM OUR EXCHANGES.

BRITTLENESS OF THE BONES IN THE INSANE.—We find the following in the notice of "Asylum Reports" in the *Journal of Mental Science* for July, 1872:

"We notice several cases of broken ribs, and the observations made seem to corroborate the opinion that the condition of the bones is peculiar, at all events, in some classes of the insane. We are disposed to think that it is chiefly among general paralytics that these fractures occur, as illustrated by the cases appended.

"At Hanwell, a man, æt. 55, 'affected with mania and general paralysis, died of pleurisy, the result of fractured ribs.' Another man, æt. 45, affected with the same disease, had a fracture of the right ramus of the lower jaw, two fractured ribs, and laceration of the right kidney; 'how caused there is no evidence to show.'

"At the Hants Asylum, a male patient, a general paralytic, fell against a table and fractured a rib. This was the only case in which death followed, and an inquest was held, the jury giving a verdict of 'death from general paralysis, accelerated by a fractured rib.'

In this case I requested the coroner to call in a medical man unconnected with the Asylum to make the post-mortem examination, which he did, and the evidence he gave showed that the bone was very brittle and the character of its structure changed, so that it fractured very easily. This was afterwards confirmed by an able microscopist, who examined a fragment of the bone under the microscope.

"At Wilts a female idiot, æt. 53, 'seemed to have turned over on her arm in her sleep,' and fractured her humerus in the act. She had suffered from rheumatic gout, and 'it is probable that the bones are atrophied, and consequently abnormally fragile.'

"At Worcester Dr. Sherlock narrates two cases of broken ribs, on which inquests were held as follows: Both patients, men, were suffering from advanced general paralysis, and when these injuries were discovered, were, and had been for some time previously, in a prostrate, hopeless, and very exhausted state. In both cases the bones were found to be in a very diseased and brittle condition, and would have given way under a degree of force perfectly inadequate to produce such a result in a healthy subject. A rib removed from its connections was easily cracked across by the force used by the finger and thumb of the operator's hand. In one of these instances the fractures were ascertained probably on the morning of the day of their occurrence, and in the other case it appeared from the examination after death, that the ribs found broken were of very old standing, had consolidated and become solidified, and were in that state when the man was sent here for care, but that in the course of the exhausting disease from which he suffered, and which was accompanied with extreme emaciation and other signs of disintegration and degeneration, several of the united fractures had again broken loose and manifested themselves upon the examination of the surgical explorer. We know that this result happens in the case of other bodily diseased conditions, and in some earlier reports your attention was called to a similar case, where it was conclusively proved that a man had sustained similar injuries long before he was sent to your Asylum; and, as in the present case, some of the fractures became disunited, and obviously only a short time before his decease. In neither case this year was any inflammatory condition excited in the lungs or pleuræ, and the jury found that death had resulted from the organic disease from which they were suffering.

"At the York Asylum, 'an old, feeble man slipped down in the gallery, and fractured his leg just above the knee; having previously sustained a fracture of the thigh in the same manner. It was purely accidental, and was evidently dependent upon an unusually brittle condition of the bones. The patient progressed favorably for some time, and then sank from exhaustion and shock."

Extreme Atrophy of the Ribs in an Insane Woman. By Prof. Ludwig Meyer, of Göttingen (*Virchow's Archiv*, 1871; quoted in *Schmidt's Jahrb.*, Bd. 154, 1872, No. 4).—This woman, æt. 55, died of suppurative nephritis, in the Göttingen Lunatic Asylum. The ribs appeared excessively reduced in breadth as well as in thickness, being in some places almost like a knife-blade. A slight attempt to bend them caused them to give way. They broke like brittle pasteboard, short off, without splitting. The bone was neither soft nor elastic, but crepitated under the finger; but it sprang back to its place as soon as the fracturing force was removed. The ribs were very light in weight, their surface furrowed and vascular; the cortical substance a mere paper-like, translucent shell; the spongy substance much thinned, and its cells filled with a thin, greasy, brownish-red liquid. The cortical substance, when treated with muriatic acid and examined microscopically, seemed normal; the bone-corpuscles of the usual appearance and number; the Haversian canals wide, pouched out, and showing a membrane striped, thick, studded with fatty granules and granular masses. The liquid contained blood-corpuscles and fat-granules. The other bones were normal or almost so. Professor Meyer thinks this lesion due to the especially diminished respiration often observed in the insane. No fracture had occurred during life.

Primary Cancer of the Trachea and Bronchia. (Dr. Langhaus, of Marburg, *Virchow's Archiv*, vol. liii. part 4, 1871).—The following case shows that the bronchia and trachea may be the seat of primary cancer. A man forty years old had suffered for a year from symptoms indicative of stenosis of the bronchia, especially of the right bronchus. It was impossible to discover the cause of this stenosis. Finally the patient, after frequent attacks of suffocation, died in one of them.

The post-mortem examination revealed nothing abnormal in the abdominal cavity. In the thoracic cavity nothing abnormal was discovered, save the stenosis of the air-passages. The lungs were normal and inflated, the bronchial glands greatly swollen and very melanotic, without cancerous deposits. The air-passages presented nothing abnormal to external observation; but upon opening them extensive disease of their walls was found at the bifurcation of the trachea. At this point the greatest and most irregular thickening of the mucous membrane occurred. Upon the posterior and inferior surface of the trachea a large number of nodules, 7 mm. in height, smooth or slightly roughened, with broad, or in some instances constricted base, were found to extend 2½ cm. into the right bronchus. This fact, coupled with the disease of the mucous membrane of the right bronchus, occasioned great constriction of its calibre.

The rest of the bronchus contained long ridges of soft consistence, the substance of which projected when cut, and was white, but without any marked amount of fluid.

The microscopic examination of the nodules revealed their cancerous nature. They were composed of two elements, viz.: a reticulated stroma of connective tissue, and clusters of cells in the meshes of the stroma. These were small polyhedral or cylindrical cells, containing a distinct nucleus, with nucleoli and a small amount of cell-substance, lying next to the cells of the inferior layer of epidermis.

They were, without intermediate substance, connected with cylindrical prolongations from 0.04 to 0.08 mm. wide, closely resembling similar structures of cancer and cancroid, and exhibiting a well-defined contour, reminding one of an enveloping membrana propria, though such a membrane was certainly *not* present. In the peripheral layer the cells were of cylindrical form. These lay very close together in a delicate stroma composed of elastic fibres and connective tissue.

Although lying close together, the cells did not press upon each other, but were suspended lightly one from another, a condition easily seen by changing the focus of the microscope. The same morbid cell-elements were found in all the layers of the mucous tract, in the most superficial, directly under the epithelium, in the elastic layer, the fibres of which were pushed asunder, and most plentifully in the glandular layer, in which the glandular structures were entirely gone. The disease had extended through the submucous layer to the cartilage, the perichondrium of which was thoroughly infiltrated with the morbid products. The microscopic investigation proved the growth to be soft cancer of the mucous membrane, constituting a very rare case of primary cancer of the trachea and bronchia.

Arsenic as a Prophylactic in Rabies (*Correspondenz-Blatt*, August 1, 1872).—Dr. Ernest Guisan, in an inaugural dissertation presented to the faculty of Berne, states that though he has arrived at no positive conclusion, he believes that, as in cholera, the germ of the contagion in rabies is formed by one of the lowest fungi. The period of incubation extends, upon the average, over five or six weeks. The poison is then absorbed, spreads itself through the body by means of the circulation, and then multiplies indefinitely, producing ultimately irritation of the nervous centres, and especially of the medulla oblongata. Dr. Guisan then enters into the prophylactic treatment of the disease by means of arsenic, and gives the following clinical observations: "A man was bitten on the 24th of June by a mad dog, in the hand; a girl was bitten at the same time, and shortly after died from hydrophobia. Two days after the accident the man applied to Dr. Guisan's father, who cauterized the wound deeply with potash, and kept the wound open with cantharides. Minute doses of belladonna were given morning and evening up to the 18th of July, when the patient had rigors and pains in the body. From this time up to the 26th of July the symptoms of hydrophobia became gradually more and more expressed, in spite of repeated venesections and the use of calomel and opium. At this date, however, small doses of arseniate of soda were prescribed every four hours (0.003 of a gramme). On the 27th, marked amelioration of the symptoms was observed, which continued till, on the 30th, all danger had passed, and complete recovery took place." Dr. Guisan gives another case in which a rabid dog, between the 7th and 9th of June, bit thirteen persons in various towns of the canton of Freiburg. All were recommended to be treated with one-twentieth of a grain of arsenic morning and evening, as a prophylactic measure. Eight submitted to this prophylactic measure, and none were affected. Four declined, or were not allowed, to take the arsenic. Of these four, two remained unaffected, and two died. One began the arsenic treatment, but speedily left it off. She was attacked, but at a much later period, and died. Dr. Guisan recommends not only the internal employment of the arsenic, but that the wound should be dressed with it.

The Dementia and Hemiplegia of Syphilis. By Dr. M. H. Henry (*American Journal of Syphilography and Dermatology*, January, 1872).—There is a tendency at the present day to attribute obscure brain-disorders to syphilis; sometimes merely because the patient has had venereal disease at some period of his life, and sometimes because the disease can be traced to no other origin; but there has not been as yet a sufficiently careful study made of syphilitic lesions of the nervous system to place the subject on a thoroughly scientific basis. It is with a view of adding to the literature of this branch of medicine, and with the belief that careful clinical observations will bring "order out of the chaos of ideas that are now afloat regarding the etiology and pathology of brain-syphilis," that Dr. Henry has reported these cases.

The first case is one of "dementia," which occurred suddenly, two years after the patient had contracted the primary sore. In the mean time he had shown evidences of constitutional disease, for which he was treated by the author, and from which he had apparently recovered entirely.

During the course of the disease, facial palsy, together with strabismus, great impairment of vision, and partial loss of power in the legs, came on.

The patient was completely restored to health under the use of iodide of potassium. An interesting feature is the immense doses of the drug that were tolerated. For at least a month, three hundred grains of the iodide were taken every day, not only without inconvenience to the patient, except slight disorder of the stomach, which soon yielded to treatment, but he gained in flesh and strength day by day. The lesion in this case was supposed to be diffused gummy deposit at the base of the brain.

The other case was one of hemiplegia, with a well-marked syphilitic history. Death occurred on the seventh day after the seizure, which was sudden. At the autopsy, a gummy tumor, "as large as a pea," was found in the fissure of Sylvius, encircling the middle cerebral artery.

The Treatment of Dilatation of the Stomach by the Method of Kussmaul.—Dr. J. O. Affleck (*Edinburgh Medical Journal*, June, 1872) advocates this plan, which consists in the emptying of the distended organ by mechanical means,—the stomach-tube, with a pump or a siphon attached,—and washing it out with some medicated liquid.

The morbid condition, which may be due to the pressure of tumors, to thickening of the tissues about the pylorus, whether by cancerous growths, or by simple induration from chronic catarrh, or to the contraction of ulcers in healing, consists in a dilatation, either with or without hypertrophy of the muscular walls; hence the great bulk of the food taken is retained in the stomach, and, undergoing putrefactive and fermentative changes, becomes a source of extreme irritation and distress. Violent pain and heartburn, with eructations and vomiting, either spontaneous or provoked, of a brown-colored, offensively-smelling, strongly acid matter, are the symptoms. A pellicle containing torulæ and sarcinæ collects on the surface of the ejecta. The patient becomes emaciated and anæmic, feeble, sometimes œdematous, and may even die of starvation. Obstinate constipation is often attendant on this disorder, and the urine is scanty, alkaline, and loaded with phosphates.

Various plans of treatment have been proposed; such as giving only the smallest possible quantities of food; giving animal food only; antizymotics,—such as sulphurous acid, alkaline sulphites and hyposulphites, chlorine water, etc. The green iodide of mercury has been much used, also, in sarcinous vomiting.

In 1867, Prof. Kussmaul, of Freiburg, proposed to evacuate the stomach by means of the pump, and to wash out the organ with Vichy water. His first case was markedly relieved, and the plan was adopted in various Continental hospitals.

Dr. Affleck records two cases, one of which seemed to have been primarily a gastric catarrh, while in the other ulceration was present, in both of which Kussmaul's method was employed with great benefit. He remarks that the most favorable cases for its use are those of recent development, when no great changes of structure have had time to occur.

The objections made to the plan, none of which, however, have any real weight, are the annoyance to the patient of the passing of the tube; the risk of injury to the stomach; and the inconvenience of carrying out the treatment in private practice.

The Abortive Effects of Quinine (*Wiener Mediz. Presse*, No. 33, August 18, 1872).—In answer to a series of cases adduced to prove that quinine has a tendency to produce abortion, Dr. Bergely, of Kaposvar, Hungary, says, "Aside from its specific antiperiodical effects, quinia possesses a peculiar astringent and tonic influence upon nerve- and muscular fibres, and hence in atonic conditions of these tissues finds its most valued application." That quinine, however, possesses a specific influence upon the gravid uterus, he denies. In malarial regions, when abortion follows the administration of quinine, the malaria and not the quinine is

the cause of the abortion. In proof of this he says the effects of malaria are not only productive of anæmia, but of relaxation of all the tissues, and hence the uterus is unable to retain the fœtus.

In many cases of threatened abortion in women affected with malaria, he has averted the event by administering quinine, in the proper antiperiodic doses.

Respecting the effects of quinine in cases of retained placenta, he says that under certain circumstances it may induce expulsive contractions in the walls of the uterus, but he has found it useful only in cases where the retention is due to simple atony of the organ.

In conclusion, he says that quinine can have no specific and abortive effect upon the uterus, for, were such the case, abortion would occur much more frequently than it does in all malarial regions, where most of the pregnant females take large doses of the alkaloid to relieve their malarial evils.

The discussion is continued in the *Wiener Mediz. Presse*, No. 36, 1872, by Dr. Von Josch, of Klagenfurth, who says that, judging empirically, it seems evident that a large dose of quinine will produce contractions of the uterus in the third stage of labor, although we are entirely ignorant of the physiological action. But its use, as well as that of ergot, is superfluous in the expulsion of the placenta, and should be substituted by other and surer means.

Tetanus (*Allg. Militär-ärztl. Zeitung*, No. 37, Sept. 15, 1872).—Dr. B. Beck, surgeon to the Fourteenth Prussian army corps, says that tetanus occurred only forty-five times among seven thousand one hundred and eighty-two wounded German soldiers. It occurred more frequently among the French.

Aside from the individual peculiarities of the nervous system, the disease was caused by the presence of foreign bodies, splinters of bone, bad transportation, and, especially, exposure to *dampness* and *draughts of cold air*. The true nature of tetanus is still very obscure, and the theory that it is an ascending neuritis is not tenable, since in numerous dissections upon the cadaver, no traces of the products of inflammation have been discovered, neither have new growths of connective tissue been found in the brain or spinal cord, although fatty degeneration or extravasated blood has been found in the nerve-sheath. We must therefore content ourselves with the theory that tetanus is caused by an irritation of the spinal cord, producing its effect in a peculiar reflex manner. Of the forty-five cases already mentioned, thirty-nine proved fatal between the fourth and fourteenth days after the reception of the wound. Since art is powerless in these cases of disease, all the causative influences mentioned above must be most carefully counteracted. If operations are to be performed where joints are open and extensive laceration of tendons has occurred, they must be done at the first indications, for later they are useless. Since baths cannot be procured on the battle-field nor in temporary field-hospitals, the German surgeons in the late war depended upon morphia, curara, and chloral hydrate, the first of which proved itself to be the most beneficial.

Menstrual Epistaxis (Dr. Otto Obermeier, Charité, Berlin; *Virchow's Archiv*, volume lv. part 3, 1872).—A healthy, well-formed German servant-girl, twenty-four years old, was admitted, for temporary insanity, into the insane department of the Charité in Berlin. She stated in her lucid intervals that she had commenced to menstruate in her fifteenth year, with an attack of pain and excessive flow of blood from the genitals. This lasted only twenty-four hours; during the following forty-eight hours she suffered pain but had no hemorrhage. At the end of three days all symptoms disappeared, and the girl remained well until four weeks later, when the same pains returned, accompanied by vertigo, faintness, and bleeding at the nose, which lasted for three days. Since then these menstrual attacks have returned with regularity, and at each period she has lost about a cupful of blood from the nose, but at no time has any menstrual discharge from the genitals appeared. In March, 1870, this discharge of blood from the nose ceased, and in December of the same year the girl was delivered of a child. Six weeks after the delivery the epistaxis returned, accompanied by the former symptoms. This recurrence of symptoms lasted until August of this year, when they again ceased, and the girl supposed she was pregnant,—a fact which was soon confirmed by exploration. Among the rare cases of vicarious epistaxis, this one is especially worthy of note on account of the cessation of the menses at the time of conception, and the return of the same after the termination of pregnancy.

Excision of the Left Scapula.—Samuel Logan, M.D., New Orleans, La. (*Richmond and Louisville Medical Journal*, August, 1872), publishes a case of excision of the left scapula subsequently to resection of the head of the humerus of the same side. He is agreeably surprised at the degree of usefulness of the extremity after such an extensive removal of bone. The patient, male, aged 33 years, during convalescence from smallpox received severe blows on his shoulders, and shortly after began to suffer pain in the left scapulo-humeral joint, followed by caries of the head of the humerus and body of the scapula.

Three months after the operation the wound had almost entirely healed, with the following use of the limb: He could lift readily any moderately heavy article; could pull perpendicularly (lifting) 26 pounds, horizontally, 26½ pounds; by simply flexing the forearm (and not lifting with the body) he could raise 14 pounds; could place his hand on either ear or shoulder, but not on the back of the neck, and pass his hand over the whole of his forehead and face; he could not carry his hand behind his back, but could readily bring it so as to sweep over the whole chest and face. The cavity left by the operation was filled almost to the level of the surrounding parts with a somewhat hard mass of new deposit.

Vehicle for the Internal Administration of Chloroform (*Journal de Pharm. et de Chimie*, 1872).—Dr. G. W. Murdonck, having tried various formulæ proposed to facilitate the ingestion of chloroform, has found that some were difficult of execution, others contained sulphuric ether, and others again contained but little chloroform. He considers the best proceeding to consist in dissolving the chloroform in glycerin (1 : 3), which is effected with tolerable facility, and gives a very clear solution, pleasant to the taste, and with a strong odor of chloroform. This solution can be mixed in all proportions with water without the occurrence of any precipitation, though the odor is distinctly perceptible. In forming the mixture it is well to add the chloroform slowly, and to mingle the two thoroughly. It should be left at rest for twenty-four hours; at the expiration of this period a portion of the chloroform will be found to have collected at the bottom of the vase; this should be separated and mixed with an additional part of glycerin, when no further separation will occur. This mixture may be kept for some time without any loss of chloroform by evaporation.

Singular Case of Hemorrhage from the Bowels (*Medical and Surgical Reporter*).—A rare and important case is reported in the *Bulletin de Thérapeutique*, June 20, which throws light on some hitherto inexplicable cases of sudden death from intestinal hemorrhage. A man, 74 years of age, had enjoyed good health, except a tendency to constipation. One night

he was taken with intestinal hemorrhage, and died in a few hours. Only twice, and that about a month before, had he had slight attacks of a similar character.

A careful autopsy disclosed the only lesion to be an *erectile tumor*, the size of an almond, in the mucous coat of the duodenum. It was composed merely of an enlargement of the capillary vessels of the part, or so-called angioma. A slight ulceration at its edge had given rise to the hemorrhage which destroyed life.

The Physiological Dyspepsia for Starchy Food in Infancy. By Prospero Sonsino, M.D., of Pisa (*The Practitioner*, Sept. 1872).—If we examine the composition of milk, the proper food of the new-born and young infant, which with reason we may retain as the prototype of the complete aliments, we find in it, besides water and salts, the three organic groups of alimentary principles which concur in different manner to sustain the process of nutrition, viz. the group of albuminoid or *nitrogenized* principles, that of *fatty* principles, and that of hydrocarbonaceous principles. But it is remarkable that the latter are exclusively represented by a kind of sugar called *lactin*, which, with an insignificant modification, being converted into *glucose*, is rendered diffusible,—a substance which could almost be called a true nutriment in the signification given to this word by Corvisart; whereas the starchy principle, which is a conspicuous ingredient of the diet of the adult, and which needs an elaborate process of digestion to be converted into glucose, the material fit for absorption and diffusion, is not at all present in *any* milk. This circumstance of the composition of milk induces us to put the question, "*Is the easiness of digestion of milk in early life to be attributed to its being deprived of starchy principles?*" or, in other words, "*Is it the inaptitude to digest the starchy matter which in early life interferes with the complete digestion of all the aliments which include that material?*"

We have good reason to reply affirmatively to this question, and it follows that in infants there is what we may call a *physiological dyspepsia to starchy matters*, to which ought to be referred much, if not all, of the difficulty in the choice of the convenient food for infants.

It is convenient to examine what other considerations may confirm this suspicion of the indigestibility of starch in early life.

For this purpose it is of paramount importance to examine the peculiarities of the anatomical conditions of the digestive canal in the infant. It is known, in fact, that zoologists have established some differences in the anatomical characters of the digestive canal, which distinguish herbivorous from carnivorous mammalia; and that as to man, the anatomical conditions of his digestive canal, being between those of herbivorous and carnivorous, give evidence that he is neither exclusively herbivorous nor exclusively carnivorous, but omnivorous. Now, can we say the same thing as to the early infantile age?

Dr. Routh, who has dwelt much on this question, quoting Burdach, says, "It is remarkable that suction is the only faculty for the prehension of food which the child possesses at birth, and even this is soon lost if not practised. The jaws are not so constructed as to permit active movements, nor the gums to bear pressure. The hard palate is but little developed, although the cavity of the mouth is sufficiently wide. There is, moreover, no saliva secreted for the first two months, so that no species of preparatory change can take place in it, as, for example, in the conversion of starchy matters into sugar, through the agency of this fluid (saliva). The mouth is, therefore, merely an organ of transmission and suction. The lips are large, and the tongue and pharynx, uvula, and soft palate are well developed, to secure these ends. The stomach in infants is a small tube-shaped membrane, dilated in the centre, one extremity ending in the œsophagus, and the other in the pylorus, resembling in this character that found in carnivora through life. In position, also, it lies more parallel to the trunk; the large and small curvatures and muscular structures being but very little developed. The liver at birth is unusually large; the pancreas perhaps not more developed than the salivary glands; the intestinal tube is much shorter, and the large intestine approaches more nearly in its length to the small. The cæcum (in which, moreover, it is believed a sort of additional digestion occasionally occurs) is very small. The peristaltic motion is more rapid. All these are evidences that food taken will be kept for a shorter time in the canal, and therefore should be in the condition most favorable for digestion. Lastly, in no other of the mammalia is there, in the first periods of life, such a complete absence of teeth. In man they appear latest, and are longest in obtaining their full development. In fine, comparing these appearances with those observed in herbivorous animals, viz. well-developed salivary glands; compound stomachs, sometimes four in number; muscular gizzards, as in some birds; long intestines, large ileum, etc., it is manifest they are the exact opposites to what we find in young infants. As the child grows, the peculiarities which are permanent in herbivorous animals gradually present themselves. The stomach assumes a more horizontal position, the *valvulæ conniventes* become well developed, the peristaltic motion of the intestines becomes slower; in fact, all the changes calculated to retard the food in its progress, and thus to expose it more completely to the solvent juices for digestion, occur. All this proves indubitably that animal, not vegetable, food, is the proper diet for an infant." Routh's "Infant Feeding and its Influence on Life," etc., second edition, p. 75, London, 1863.

But let us see what is the principal difference of composition between animal food and vegetable food. Partly, that in the latter we find more materials refractory to any digestion; that in consequence a more elaborate power of digestion is needed to obtain the nutriment from it. We find, in the one and in the other, albuminous principles, fatty principles, saccharaceous principles; whereas *only starchy principles*, which constitute the principal ingredient of vegetable food, are not at all present in animal food, be it meat or any other tissue, or a product of the animal, as milk or eggs.

Therefore, the same physiological and anatomical arrangement that in infants gives evidence of its being not prepared for vegetable food, supports the conclusion that starchy matters cannot be well digested in infancy, and that there is really in infancy what may be called *a physiological dyspepsia for starchy aliments*.

Another valuable confirmation that starchy matters are not well digested by the infant, we have, lastly, in the very interesting observation made by a Frenchman, M. Guillot, who in the autopsy of a number of infants found a jelly-like substance present in the intestines, which to the test of the tincture of iodine gave evidence of containing a large quantity of unaltered starch. This fact is referred to both by Dr. West in his excellent general remarks on the diet of infants, being a chapter of his valuable work on Diseases of Infancy, etc., and by Dr. Routh, at p. 325 of the book already quoted.

Death from Ether (*Medical Record*, Oct. 1, 1872; by W. B. Dunning, M.D., Acting House Surgeon, Bellevue Hospital.)—John Stockander, a German saddler, unmarried, sixty-eight years old, was admitted to Ward thirteen of Bellevue Hospital, on August 2, 1872, suffering from a fracture of left femur, just below the trochanter. The patient was treated by a Buck's Exten-

sion until August 20, when it was decided to apply a plaster of Paris splint. In order to make sufficient extension, and at the same time prevent the pain of the operation, ether was ordered to be administered. The administration of the anæsthetic was slowly and carefully made, and after perhaps ten minutes the patient was fully under its influence and the operation begun. A few turns of the plaster had been made, when the patient's breathing was observed to be rather frequent and gasping. The pulse was, however, full and regular. The thorax was compressed two or three times, and the patient's breathing again became normal. As these symptoms not rarely occur during etherization, they excited no special alarm. The ether was, however, withheld from the patient four or five minutes, his respiration and pulse being normal. As he then began, however, to move about and his muscles were becoming rigid, the ether cone was again applied. In a minute or two, my assistant, who was giving the ether, observed the pupils to be dilating rapidly and the breathing to cease. His heart was still beating, however. The ether cone was of course immediately removed and artificial respiration was again used, and all the batteries obtainable in the hospital were put in operation in an effort to resuscitate the patient. His muscles occasionally responded by a spasmodic movement, but no breathing again occurred. The efforts at resuscitation were continued about forty minutes, until all response to the action of the battery had ceased.

Patient died about four P.M., and the autopsy was made at seven P.M. that same day, under direction of Dr. Delafield. Rigor mortis was marked. Blood was fluid. Brain and membranes neither anæmic nor congested. Trachea and larynx somewhat pale. Heart contained a little fluid blood, with a little atheroma at base of aortic valves. Lungs have old adhesions over both. Emphysema exists, and thickening of large bronchi. The lower lobe of right lung is œdematous, and its lower portion in a state of red hepatization. Rest of lung is normal and not congested. Liver is small and firm, containing a good deal of fluid blood. The other organs are normal.

The ether used was that made by Powers & Weightman. It has been examined by Dr. Squibb, of Brooklyn. He states that he "finds nothing in the character or quality of the ether to account for the death of the man, or even to aid in accounting for it." He adds, that in his "judgment the death of this patient is in no way attributable to either the quality of the ether, the quantity used, or the mode of administration, but that it is one of those accidents which, though of very rare occurrence under the careful use of ether, is inseparable from the condition of anæsthesia."

The quantity of ether used was about ℥vj.

Thoracentesis in Infantile Pleurisy (*Lancet*, Aug. 10, 1872; from *Bull. de l'Acad. de Méd.*).—In the course of the discussion still going on at the Paris Academy of Medicine on empyema, Dr. Roger, physician to the Hôpital des Enfants, had occasion to relate the results of his vast personal experience of empyema in children. Referring especially to the question of thoracentesis, and basing his opinion upon a great number of facts which he related, Dr. Roger thus tersely summed up his conclusions: Operate *always* in cases of *purulent* pleurisy in children; operate *rarely* in cases of abundant serous effusion; *never* operate in cases of slight effusion.

Therapeutic Actions of Muriate of Lime.—Dr. Warburton Begbie (*Edin. Med. Jour.*, July, 1872), in an able memoir read before the Medico-Chirurgical Society of Edinburgh, after alluding to Cazenave's use of this article in lupus, says, "This much I am able to affirm, that its alterative powers in certain cases of cutaneous eruptions intimately connected with syphilis, more especially lupus exedens and non-exedens, and in local psoriasis, also in some instances of ozæna and chronic tonsillitis, have appeared to me quite unmistakable. The dose is from ten to twenty grains in solution."

Carbolic Acid for Injecting in Hydrocele.—Dr. P. E. Sandidge, of Edmonton, Ky., reports in the *American Practitioner* a case of double hydrocele, operated on by him in 1868, with the usual injection of tincture of iodine. In April, 1871, the trouble having returned, he operated again on the right sac, injecting f℥ij of Calvert's solution No. 5.* In January, 1872, he repeated the procedure on the left side, and thinks he has obtained a perfect cure, no reaccumulation having taken place at the end of six months.

Telegram from the Convention of German Naturalists and Physicians (*Wiener Mediz. Presse*, August 18, 1872).—"Leipsic, 15th August, 1872. In the scientific duel of to-day, between Stricker and Cohnheim, four professors, chosen as umpires, decided in favor of the assertions and correctness of the preparations of the former, while the endeavors on the part of Cohnheim to set aside the methods of investigation and the scientific results connected with the 'Vienna school' were condemned with strong protest."

MISCELLANY.

Liberality and Bigotry in Medicine—Consultations with Homœopaths.—The *Pacific Medical and Surgical Journal*, October, 1872, contains the following excellent remarks: "There is a vast amount of humbug current in the world under the name of liberality, as well in medicine as in politics, morals, and religion. Restless mortals, impatient of restraint, and soured by disappointment and personal grievances, declare war against some established code or custom, and denounce all opposition to their revolutionary notions as illiberal and bigoted, and imagine themselves to be doughty champions of progress and reform. In turning over the hotch-potch of periodical literature issued in the name of medicine, one often notes the footprints of these iconoclasts, some of whom have undertaken the task of breaking down the barriers between what they consider as medical sects, and establishing a grand fraternity which shall embrace in one loving circle all parties, creeds, and schools. It is very easy to make a show of charity by pleading for a union of this kind; and it is alike easy to attach the semblance of illiberality to physicians who refuse professional intercourse with those of opposite schools. The enemies of regular medicine have made much capital out of the enforced prohibition of consultations with homœopaths. Under the specious idea of accepting good wherever it may be found, they defend what they are pleased to consider a liberal intercourse with sectaries of all kinds. And there are many persons in the world, very sensible in other respects, who can see nothing but bigotry and intolerance in the refusal of regular physicians to consult with sectaries who proclaim, as the first article of their

* See the number of the *Times* for August 15, p. 436.

faith, that the regular system of medical practice is murder. The popular notion is that the barrier between the regular profession and others is one of jealousy and personal feeling, built up by the profession. The truth is that the barrier is in no wise personal, but is founded on common sense and propriety, and on a proper regard for the welfare of the sick. Is it not worse than mockery to hold a consultation over a sick man with a practitioner who tells me that my treatment is irrational and injurious? What compromise can there be between two systems *directly opposite* to each other? A true homœopath cannot adopt my system, or any portion of it. To do so would prove him to be an arrant hypocrite. There are some who practise either system, according to circumstances. They are as honest as would be a clergyman in preaching to suit his hearers or his pocket, Romanism to Catholics, Socinianism to Unitarians, Buddhism to Burmese. What would be thought of a Catholic Bishop and a Jewish Rabbi being required, in order to illustrate religious toleration, to meet together and join in administering the last rites of religion to a dying man? The most they could say in answer to the request would be, One at a time. And it is just as absurd to call on a regular physician to confer professionally with a homœopath. The refusal implies no personal hostility,—no sentiment incompatible with the second table of the Law. It is but a declaration of consistency and honesty,—a refusal to sacrifice principle to policy,—a refusal to act the hypocrite with another hypocrite over the bed of sickness."

An eccentric character died recently in St. Louis, Missouri, who is described by a correspondent as follows: "There died in this city yesterday, of smallpox, an eccentric old man, named Hotchkiss, generally known as the 'Snapping Doctor,' the 'Rag Doctor,' and the 'Dirty Doctor.' Hotchkiss was an illiterate man, who claimed to have supernatural powers of healing the sick through the agency of animal magnetism, and extraordinary stories of miraculous cures of chronic diseases by him are in circulation among the ignorant people who believed in him. He was a very old man, and claimed to be one hundred and forty years of age, with an expressed determination to live until the second coming of Christ. He was not only a very old, but he was also a very dirty, man. It is said that for twenty years he has not washed himself, and his apartments reek with filth. Dr. Hotchkiss was a queer-looking old fellow. He wore a long gown and a red fez cap. His sharp, haggard features, begrimed with the accumulated dirt of years, his brilliant black eyes, restless with the fires of insanity, and his long, matted, snow-white beard, gave him a weird, unearthly look. His extreme age cannot be doubted, though it is hardly probable that he was 140."

The Pathological Society of Philadelphia.—The annual meeting of this society was held on the 24th ultimo, at which time an election for officers took place, and reports of the officers were made. The number of specimens presented during the past year (over one hundred), as shown by the report of the Secretary, indicated that the work of the society had been maintained, and that the interest in pathological research was unabated. The experience of the past two years has demonstrated fully the wisdom manifested in the organization of the Committee on Morbid Growths.

The work performed by this committee has been of the highest order, and has greatly increased the interest in the society.

Dr. J. H. Hutchinson was re-elected President. Dr. J. Ewing Mears, who has served as one of the Secretaries for three years, resigned, and Dr. D. Murray Cheston was elected to fill his place. Drs. W. F. Norris and Wm. Thomson were compelled by professional engagements to resign from their positions on the Committee on Morbid Growths.

Advice to Medical Witnesses.—Dr. Thad. M. Stevens (*Transactions of Indiana State Medical Society*) gives some good counsel to medical witnesses: "Each witness having a well-digested knowledge of all that is known upon the subject, should upon the main examination give a clear statement of the case, devoid as possible of technicalities, and his opinion with reference thereto from personal observation; or if it be upon a hypothetical case, answer if the hypothesis be clear, but, if it be not, insist upon its being modified or refuse to answer. Never answer a categorical interrogation when it needs interpretation or division into parts. And as to cross-questioning in general, 'do not permit the attorney to force you into answering questions that you are aware cannot be made clear or will mislead.' Such a position is the privilege of the medical witness, and never, until it is recognized, will the subject be upon its right footing."

The managers of the Pennsylvania Hospital, in order to extend its benefits to a large class who, although requiring medical aid for which they cannot afford to pay, do not absolutely need admission into an hospital, and indeed prefer remaining with their families, have determined to open a department for "out-patients," in which those applying will receive the necessary medical service or surgical treatment. With this purpose the managers, at their stated meeting on the 28th of October, elected the following-named physicians and surgeons to take charge of out-patients, viz.:

Physicians, Drs. Morris Longstreth, Jos. G. Richardson, and Joseph J. Kirkbride. Surgeons, Drs. Chas. T. Hunter, Thomas H. Andrews, Elliott Richardson, and H. Earnest Goodman.

This department is now open at the hospital on Eighth Street, below Spruce, daily (Sundays excepted), from 10 to 11 A.M.

A Floating Hospital for Chest-Diseases (*Wien. Med. Presse*, September 1, 1872).—To our numerous land hospitals low down on the sea-coast and high up in the mountains, is to be added now a new institution with very many advantages, but with the single disadvantage of being only for the benefit of the rich. Dr. V.

Wallendorf establishes a hospital for chest-diseases this winter on a screw propeller, which is to journey out late in the fall from Cuxhaven beyond Gibraltar and along the coast to Malta, if the weather is fair, and to return again in the beginning of April. The vessel is to be specially prepared for its purpose, is to have a competent physician on board, and the patients are to be allowed to make land-sorties as long as possible in several stations of mild climate.

Dr. Brown-Séquard having resigned the chair of Comparative and Experimental Physiology in the Parisian Faculty of Medicine, Dr. Vulpian has been appointed in his place.

This makes a vacancy in the chair of Pathological Anatomy, which will probably be filled by the nomination of Dr. Charcot, the well-known physician of La Salpetrière.

The Paris correspondent of the *Lancet* of October 12, who gives the above items, announces the death of Dr. S. Duplay. [We think this must be a mistake; Dr. *J. F.* Duplay's death having been mentioned in some of the French journals. M. Simon Duplay is one of the editors of the *Archives Générales*, and a man whose loss would have been at once and widely noted.—Ed. P. M. T.]

Midwifery in Russia.—It is stated that the Emperor of Russia has just issued a ukase ordering the immediate establishment at St. Petersburg of a school to train midwives, as up to the present time no such institution had existed anywhere in that immense empire. The curious part of the matter, however, is that the direction of this school is placed in the hands of the Minister of War, who, under date of the 10th of August, published the regulations of the institution and the programme of the studies. This anomaly results from the fact that the new school is subordinate to the Academy of Medicine and Surgery at St. Petersburg, which is also under the control of the War Department.

Poisoning by Vanilla.—A physician in Worcester County, Mass. (*Boston Medical and Surgical Journal*, August 1, 1872), in speaking of cases of poisoning by vanilla flavoring, stated that in his own family evident and violent poisoning from a similar cause recently took place. Five members of the family were affected, all of whom had partaken of custard flavored with vanilla, while two who had not eaten escaped. The symptoms were severe diarrhœa, with violent pain in the lower abdomen, without much gastric disturbance.

Medical Rank in the Navy.—The *Naval Register*, recently published, gives the following numbers and rank of the Medical Staff: 15 Medical Directors, with the relative rank of Captain; 15 Medical Directors, with the relative rank of Commander; 50 Surgeons, with the relative rank of Lieutenant-Commander; 25 Passed Assistant Surgeons, with the relative rank of Lieutenant; and 52 Assistant Surgeons, with the relative rank of Master.

Among the "volunteer officers" are 2 Acting Passed Assistant Surgeons and 11 Acting Assistant Surgeons.

The Academy of Natural Sciences.—The cornerstone of the new building for the Academy of Natural Sciences was laid on Wednesday, October 30, at noon, at the southeast corner of Race and Nineteenth Streets. Addresses were made by Dr. W. S. W. Ruschenberger, Prof. J. Aitken Meigs, and Prof. H. C. Wood, Jr. It is proposed to erect at present one wing of the building.

The following statement is from the New York telegraphic advices of a recent daily paper: "One Dr. Will was found guilty of malpractice yesterday by ignorance in treating a fractured hand so as to cause mortification, and subsequent loss of the hand. Five thousand dollars damages were awarded."

Dr. R. Angus Smith says that the air of houses should not contain carbonic acid enough to give a precipitate when a ten-ounce bottleful is shaken with half an ounce of clear lime-water.

The retirement of Dr. J. M. Foltz, late Chief of Bureau of Medicine and Surgery, U. S. Navy, has placed Dr. J. C. Palmer in that position.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending Nov. 2, 1872, were 264; of which 138 were of adults, and 126 of minors. Among the causes assigned were:

Consumption of the Lungs	43
Other Diseases of the Respiratory Organs	30
Diseases of the Circulatory Apparatus	16
Diseases of the Brain and Nervous System	34
Diseases of the Digestive Apparatus	15
Zymotic Diseases (2 from Smallpox)	21
Typhoid Fever	7
Cholera Infantum	1
Casualties	7
Intemperance	2
Debility (including "Inanition" and "Marasmus")	28
Still-born	16
Old Age	8
Suicide	1

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 22, 1872, TO OCTOBER 28, 1872, INCLUSIVE.

Horton, S. M., Assistant-Surgeon.—Granted leave of absence for eighteen days, to take effect on arrival of Acting-Assistant Surgeon Buffington at Fort McKavett, Texas. S. O. 184, Department of Texas, October 17, 1872.

Monroe, F. Le B., Assistant-Surgeon.—Assigned to duty at Raleigh, N. C. S. O. 224, Department of the South, October 19, 1872.

Lauderdale, J. V., Assistant-Surgeon.—Relieved from duty at Fort Wood, New York Harbor, and assigned to duty at Fort Hamilton, New York Harbor. S. O. 201, Department of the East, October 21, 1872.

King, W. H., Assistant-Surgeon.—Granted leave of absence for thirty days, with permission to apply at Headquarters, Military Division of the Missouri, for an extension of thirty days. S. O. 169, Department of the Missouri, October 19, 1872.

Harvey, P. F., Assistant-Surgeon.—To report at St. Louis Depot, Mo., to accompany recruits to Texas, and on completion of this duty to join his proper station. S. O. 259, Headquarters of the Army, October 19, 1872.

Ewen, C., Assistant-Surgeon.—Granted leave of absence for four months. S. O. 262, War Department, A. G. O., October 23, 1872.

SATURDAY, NOVEMBER 16, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURES

ON PROLAPSE OF THE WOMB.

BY WILLIAM GOODELL, M.D.,

Physician-in-Charge of the Preston Retreat; Clinical Lecturer on the Diseases of Women and Children in the University of Pennsylvania.

LECTURE I.

THE term *prolapse of the womb*, in its primary and strictly etymological sense, means the displacement of the womb as a whole by descent. A wider meaning has, however, been loosely given to it, partly because our nomenclature does not keep abreast with the times, and partly because it is not easy to give up a term firmly established by long use. Three widely different affections are now included under it, viz.: (*a*) A simple descent, or settling down of the womb. (*b*) A hypertrophic elongation of the infra-vaginal portion of the cervix. (*c*) A (so-called) hypertrophic elongation of the supra-vaginal portion of the cervix. In its present comprehensive sense, then, the term *prolapse of the womb* has come to signify a condition of that organ in which the *os tincæ* is found lower down than natural, the position of the fundus being practically disregarded. Apart from the violence thus done to language, there is questionable propriety in including under one general name three distinct lesions, simply because they happen to have one symptom in common.

In the simple prolapse of the womb,—which should more properly be called a substantial descent of the womb,—that organ as a whole, together with its furniture of tubes, ovaries, and ligaments, merely sags down, dragging with it the vagina and the bladder. The degree of displacement being proportioned both to the weight of the prolapsing body and to the relative relaxation of its supports, the womb will be found either more or less low down in the vagina, or else wholly extruded from the vulva. By many writers, the transitional stages of descent while the womb is yet within the vagina are included under the term *prolapsus uteri;* but when the descent is complete, and the womb wholly or in part outside of the vulva, the condition is called *procidentia uteri.* I must, however, warn you that these distinctive names have not been adopted as such by the profession at large; for by some they are employed interchangeably, as if they were synonyms, and by others in a reversed sense. The terms *complete* and *incomplete* would, therefore, be far more acceptable.

Studies from life quicken our apprehension far better than diagrams or verbal descriptions, and I shall therefore illustrate this form of displacement from one of our patients. This tall, thin woman is unmarried, and, although over sixty years old, is obliged to work hard for a living. Five years ago she began to suffer from a leucorrhœa, from dragging pelvic pains, and "bearing down" sensations. These symptoms had lasted for a few months, when one day, as she was in the act of lifting a scuttle of coals, "something gave way," and with a sudden pang of pain, her womb jutted out from the vulva. At first, after being replaced, it would stay so for one or two days; then, only for a few hours; but now, as long as she is on her feet, it hangs outside of her body. After getting into bed she is always able to push it back into the vagina, where, unless she coughs, it remains until morning. Of course, by this complete descent of the womb, all her former sufferings have been heightened; whilst in addition she now experiences difficulty in emptying her bladder, and strains much at stool.

As I expose the parts, you see a pyriform tumor hanging from the vulva. At its apex there is an opening—the *os externum*—into which I now pass up this sound to a distance of not quite two and a half inches. Now, since I can feel the tip of the sound outside of the vulva, and can with my fingers also define in the tumor the whole outline of the womb; and since a rectal examination informs me that the womb and vagina have vacated the pelvis, there can be no doubt that we are dealing with a case of complete prolapse, of true hernia, of the womb. The vagina, being of course completely inverted, as much so as a stocking turned inside out, constitutes the hernial sac; but the weight of the womb has not been sufficient to smooth out its rugæ. I wish you particularly to note the fact that the womb is retroverted and somewhat retroflexed. This results necessarily from the mechanism of descent, whenever the womb is the primarily prolapsed organ. For, since the womb is, as it were, slung at its middle, viz., the os internum, by its attachment to the bladder, it follows that in its descent the fundus must hug the sacrum, and describe the arc of a circle around the internal os as the centre of motion. Further, since the fundus is the heavier end of the suspended body, and also is forced down by the bulging in of the rectum into the vagina during the act of defecation, whilst the cervix is braced against the pubes or the neck of the bladder, some degree of bending will usually ensue. In fact, a retroversion or a retroflexion is but a modified form of prolapse, and must perforce precede the extrusion of a primarily prolapsed womb.

This simple form of prolapse is very generally the result of senile atrophy, and is therefore far more commonly found in old women. The pelvis has lost its padding of fat; the lax and wrinkled vagina no longer holds up the womb; the retentive power of the abdomen has been weakened by the absorption of the fat-packing in the omentum and in the abdominal walls. By the general decrepitude of old age, or by the muscular debility from disease, the woman's figure becomes altered. Her spine loses its sigmoid shape, her shoulders droop, and her chest bends forwards. Hence, the axis of the superior strait, instead of striking a point on the abdomen below the umbilicus, tends now to coin-

cide with the axis of the trunk. As a consequence, the intestines crowd down into the pelvis, and their weight is spent, not upon the pubic bones and the adjacent portion of the abdominal wall, but directly upon the womb, which now no longer lies under the shelter of the sacral promontory and of the lower lumbar vertebræ.

In younger women there are other causes which bring about this form of prolapse. For instance, those which increase the weight of the womb, such as congestion, subinvolution, and the presence of a polypus or of a fibroid tumor; those which weaken the lower supports of the womb, and shorten and straighten its line of descent, such as a relaxed vagina, and perineal lacerations; those, finally, which produce succussion or compression from above downwards, as a chronic cough, long-continued vomiting, tight-lacing, the wearing of skirts supported from the waist, and last, not least, the prolonged use of the obstetric binder, under the mistaken notion that it preserves the shape. Again, there are acute cases of prolapse from sudden jars, or from abrupt abdominal pressure.

This form of prolapse was deemed almost the only one until Huguier, in 1859, contended that so far from being a common form, it was an exceedingly rare one, and especially so when compared with that caused by a hypertrophic elongation of the supra-vaginal portion of the cervix. As you grow, and as knowledge grows, you will often be constrained to strip off even the poor tatters of some traditional belief; but I cannot yet ask you to adopt Huguier's opinion, supported though it is by many careful observers. My own observations teach me that the simple prolapse of the womb is by no means an infrequent affection of women—preferably of old maids—who have passed the climacteric, or who have been unbraced by chronic ailments. Nor have I failed to find it in younger subjects; although in such cases, either from imperfect involution after labor, from inflammatory action, or from subsequent derangements of circulation in the pendent mass, and also from friction and exposure to the air, there is usually some degree of hypertrophy of the womb, in its totality, however, —fundus, corpus, and cervix,—and not in one portion to the exclusion of another.

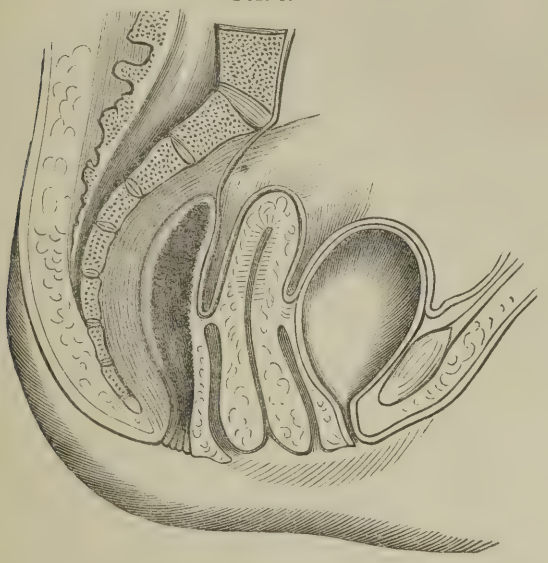
The indication in the treatment of this poor woman is clearly to return the womb and keep it in its place. As the perineum is intact, I think this can be done by Hodge's pessary or by some one of its modifications, which acts by restoring the posterior wall of the vagina and by propping up the fundus. At the same time I shall enjoin her to keep the contents of her bowels soluble, to avoid the lifting of heavy weights, to wear loose dresses, and to support her underclothing by shoulder-straps. Should the floor of the pelvis prove too slack to sustain this or the ring pessary, I shall try one which has an external base of support, such as Cutter's or Harlow's. Were her womb hypertrophied or otherwise diseased, in addition to the use of the pessary a special treatment should be addressed to these complications. Had she a torn perineum it would be well not only to restore it, but, by prolonging the incisions, to narrow still more the outlet of the vagina. This operation will of itself temporarily prevent the extrusion of the womb; but it can give permanent relief only when it furnishes to the pessary a firm base of support. To maintain an erect carriage, and to restore the sigmoid curve to the spine, a brace with a pad over the lumbar vertebræ is said to answer well; but with this I have no experience whatever. In general, whenever the prolapse is incomplete, and dependent, as it then usually is, upon some congestive or inflammatory condition, begin your treatment, not with pessaries, but with the usual remedies for such lesions. By removing the cause you remove also its consequences; but when foiled in this, then, and only then, may you resort to mechanical means.

In the second variety of prolapse,—that from a *hypertrophic elongation of the vaginal portion of the cervix*,—an entirely different condition obtains. Through nutritive activity this portion of the cervix becomes larger and much longer than natural; and although by its increased weight it usually drags down the body of the womb somewhat, yet this is so unessential a sequence that the affection has been termed "prolapse without locomotion of the fundus." In this variety, the cervix so rarely attains to a length greater than that of the vagina that, in our clinic, we have not yet met with an example in which the os tincæ showed itself outside of the vulva. You are, however, all familiar with that modified form of it, the conical cervix, which is interesting from its bearing upon dysmenorrhœa and sterility. Whenever the vaginal portion of the cervix is so long as to protrude from the vulva, it is, as a rule, either a congenital condition or an exaggeration of a congenital condition, and is therefore found in nulliparæ. In child-bearing women, through metritis from the contusions of repeated labors, the vaginal portion often takes on an hypertrophy, but this is then less an elongation than a general increase in every direction. There is yet another form of hypertrophic elongation which involves one lip of the os, usually the anterior. The prolongation becomes proboscis-like, and, from its resemblance to the snout of the tapir, has gained the name of *tapiroid*. All these acquired forms of hypertrophy are usually traceable to the traumatisms of labor, or to defective involution.

From the diagram (Fig. 1) you can see that the diagnosis of these affections is not difficult. Their character is sufficiently marked by the unnatural length of the uterine cavity and by the absence of vaginal invagination and of vesical prolapse. The tapiroid cervix may possibly be mistaken for a polypus, but, as the remedy in each is the same, no harm could happen. In all the varieties of hypertrophy attended by elongation, the redundant portion of the cervix when troublesome must be cut off. For this purpose the scissors, the écraseur, and the galvano-cautery, have each its advocates. The risk from hemorrhage is less when the latter instruments are used; but the scissors offer the advantage of a cleanly incised stump which the operator can cover by sliding over and stitching together the edges of the surrounding mucous membrane. Healthy tis-

sue being thus substituted for unhealthy, there can be no return of the disease, and further, the wound will sooner heal. For the details of this operation, I must refer you to Dr. Sims's classic work upon uterine surgery.

Fig. 1.



Let me here warn you against performing at your office this, or any other cutting operation upon the cervix or the vaginal tract. A smart hemorrhage is pretty sure to follow, either then and there, or else after the ride home; but, with your patient in bed, you can always control it by astringents or by the tampon. I shall not soon forget a scrape of this kind I once got into, by snipping off several clumps of venereal warts—I have been shy of them ever since—from the vagina of an office-patient. The bleeding resisted every astringent within reach, and as she resisted harsher remedies, I was glad enough to be able to staunch it with a tampon. What with the fright and the pain, there was no getting my patient home; she lay on my sofa the better part of a day; and that, to say the least, was not agreeable.

ORIGINAL COMMUNICATIONS.

A FATAL CASE OF PURULENT AURAL CATARRH.

BY GEORGE C. HARLAN, M.D.,
Surgeon to Wills Ophthalmic Hospital.

T. M., a strumous girl, twenty-two years of age, had been subject since early childhood to occasional attacks of pain in the left ear, with slight discharge, but they had never been considered serious, and but little attention had been paid to them.

When I was called to see her, on the 23d of December, there was violent pain in and around the ear, and distressing tinnitus. The watch was heard on contact only. The meatus was nearly closed by swelling of its lining membrane, rendering any examination by the speculum impossible.

She was ordered frequent syringing of the meatus with warm water, poultices over the ear, leeches to the mastoid process, hot foot-baths, and anodynes; and calomel was administered until her gums were slightly touched.

On January 9 the pain was still violent, and some tenderness and swelling over the mastoid were noticed. Her strength and appetite were failing. Quinine, wine-whey, and beef-tea were ordered, and an incision about an inch long was made over the mastoid through the periosteum.

On January 14 the incision, which, after discharging a little pus, had closed, reopened, and there was a free discharge through it and from the meatus. The pain was much relieved, and the watch could be heard at 1″.

January 16.—The discharge was quite copious, and the pain in the ear and tenderness of the meatus had disappeared; but she complained of violent pain in the forehead, temples, and top of the head, and there were nausea, vomiting, and sleeplessness. The mind was clear, the pupils active and vision undisturbed, and there was no paralysis of any of the cranial nerves.

January 18.—The swelling of the meatus had subsided sufficiently to enable me to discern by the speculum and mirror that the membrane was destroyed, and that a rounded polypus with a broad base was attached to the upper wall of the tympanum just within its anterior border. This was removed with Wilde's snare and the polypus forceps, and a cheesy matter was washed from the tympanum.

As a means of diagnosis, the left pupil was dilated by atropia and the fundus examined by the ophthalmoscope.

The examination revealed a most beautifully-marked optic neuritis, or, more correctly, the "choked disk" described by Jackson and Allbutt. The disk was œdematous, congested and much swollen, its arteries contracted, its veins engorged and its margins obscured, and there were small extravasations of blood upon its surface. The rest of the fundus was normal. Near vision was not carefully tested before the action of the atropia, but, even afterwards, she could readily tell the time by a clock at the other end of the room. Free leeching at the temple and mastoid was ordered.

January 21.—The pain had been much less severe, and was confined principally to the occipital region. She complained of double vision, and the external rectus of the left eye was found to be completely paralyzed. The fundus of the right eye was examined, and the disk found to be in the same condition as that of the left. Vision was tested with fine print, and found to be excellent. Iodide of potassium and mercurial inunction were ordered, and blisters applied to the temple and occiput.

January 25.—The external rectus of the right eye was paralyzed. The pupil was still active, and there was no other paralysis of motion or sensation. The engorgement and swelling of the disk was much increased; its position could be recognized only by the point of emergence of the veins. Vision was still good.

January 28.—The patient died, apparently from exhaustion. There had been no delirium or coma, and she spoke intelligently a few minutes before death.

Dr. Thomson, who saw the case with me, kindly assisted at the post-mortem examination. As it was made with the partial and conditional assent of the friends, early on a winter morning, in a bitterly cold room and with a member of the family standing guard at the partly-opened door, it was not so prolonged or thorough as we should have liked it to be.

The veins beneath the scalp on the back part of the head were much engorged, bleeding freely when cut. The membranes of the brain were highly congested, but there was no effusion. The brain-substance showed very

few vascular points on section, and was scarcely at all altered except the middle lobe of the cerebrum on the left side, where a large abscess was found, containing more than an ounce of greenish pus, and resting on the temporal bone, from which it was separated by the membranes. In these, however, there was a small opening.

The brain around the abscess was slightly softened, but not congested. There was a thick deposit of lymph on the upper surface of the petrous bone, but no pus. On removal of the lymph the bone was found carious beneath it.

The temporal bone was removed, and macerated for further examination. It was then found that nearly half of the roof of the tympanum, from the entrance of the Eustachian tube backwards, was destroyed. The opening from the tympanum to the mastoid cells was very much enlarged, and the upper wall of the horizontal portion of the cells was carious and contained several large holes. The upper and posterior wall of the bony meatus was "honey-combed," and several small openings communicated with the mastoid cells. The mastoid process was very imperfectly developed, and the vertical cells were not formed.

There are several points in this case that are worth considering.

In the first place, it adds one more to the many recorded warnings against neglecting "a slight discharge from the ear," and allowing the disease to progress year after year until the bone becomes carious. The wonder is, that this result is not more frequent. When it is once established, the patient's life henceforth hangs by a thread. An exposure to cold or a slight blow upon the ear may at any time light up a meningitis or cause a cerebral abscess. Death has also often resulted without any affection of the brain, from pyæmia, with metastatic abscess in the lungs, or joints, or elsewhere. The greatest protection of these cases is in the free discharge of pus from the external meatus, as the membrane is always partially or wholly destroyed. My patient was deprived of this by the obstruction of the polypus, and the great swelling of the meatus.

This subject has an important bearing upon life-insurance, and some English companies decline to consider the case of an applicant who has a chronic discharge from the ear.

Secondly, in regard to the treatment.—I must confess that I should have recorded the case with more satisfaction if, instead of contenting myself with a deep incision over the mastoid, I had trephined the bone in a comparatively early stage of the disease. But, as reported mistakes are often more instructive, and always more rare, than reported successes, I publish it in the hope that it may prove a lesson to others, as it has been a very impressive one to me.

The case, however, was by no means a plain one. There was no positive proof of the presence of pus at the commencement, and afterwards I was misled by the amelioration of the symptoms; while the active pupils, and the absence of paralysis, fever, or mental disturbance, left me in doubt whether the intense pain might not be attributable to neuralgia, to violent attacks of which the patient, an hysterical girl, had long been subject.

Thirdly.—The ophthalmoscopic examination affords an illustration of the great value of this means of diagnosis in cerebral disease. Though this use of the ophthalmoscope has been urged with great earnestness and ability by Hughlings Jackson and others, it is not yet so general, in this country at least, as it should be. Even ophthalmic surgeons are, perhaps, too prone to forget that perfect vision is not positive proof of a normal fundus.

Fourthly.—The existence of such extensive disease of the brain with no other subjective symptoms than pain, exhaustion, and occasional nausea, is remarkable.

Fifthly.—The paralysis of both external recti, without any other paralysis, is unusual, but the examination was not sufficiently minute to afford even a suggestion of its cause.

TWO SURGICAL CASES.

BY WILLIAM C. KLOMAN, M.D.,
Baltimore.

E. S., a boy of about eight years of age, while playing with some pennies which had been given him, put one into his mouth, and accidentally swallowed it. He is a German boy, unusually dull of intellect, and gave a very unintelligible account of his sensations. Upon being questioned, he was not certain whether he had swallowed the cent or not, but said he felt pain in his breast—"there!" pointing to his left side, below the region of the heart. Upon looking into his throat as far as possible, and seeing nothing unusual, I took it for granted that if he had swallowed the coin it had passed into his stomach, and in due course of time would be voided per anum. So I advised that he be fed plentifully with mush and milk, and that a dose of castor oil be given him the next morning. His bowels were moved copiously in consequence on the following day, but nothing was seen of the coin. I recommended patience, strictly enjoining that every evacuation be carefully examined, and thus several days passed without my hearing from him. On the sixth day after the cent was swallowed, I was sent for, and was told that the boy complained more than ever of pain in the region above spoken of; that he could scarcely swallow, and had no appetite; that he had had a stool every day, but that no coin had been found. The boy insisted that it was lodged in his throat. I again examined his throat, but could see nothing unusual. I then determined to get one of the probangs with a movable joint at one end and a piece of sponge at the other, such as are used for extracting coins or other foreign substances from the œsophagus. I pressed the end with the movable joint, and met with some resistance near what I supposed must be the cardiac orifice of the stomach; with a little manœuvring, I fixed the probang upon some object, and it required some degree of force to withdraw the instrument. When I did withdraw it, I brought up a large old-fashioned cent of the year 1818. It was covered with mucus; upon one edge the mucus was somewhat bloody, and there were some shreds of

food adherent to it. The boy was perfectly relieved, no symptoms following.

C. M., a boy aged ten years, while playing in an old burial-ground, fell upon an iron railing, one of the points penetrating the abdominal wall at a point one-half inch towards the median line from the anterior superior spinous process of the ilium. The point of the iron was slightly bent, forming a hook; and in disengaging the boy from it, a piece of omentum about three inches long was dragged from the wound and considerably lacerated. I was immediately sent for, and found the omentum still bleeding. The boy looked pale and frightened; his pulse was small and frequent, but there was no vomiting. I had the usual difficulty in attempting to reduce the protruded omentum, but succeeded with the aid of chloroform. Instead, however, of returning the entire piece of omentum, I thought it best to pass a ligature around the bleeding and lacerated portion, with the view of removing it the next day. I passed the ligature around it, close to the integument, and tied it. The portion thus constricted was about one inch and a half long, and filled up the wound entirely. I then simply covered it with a cloth wrung out of warm water, enjoined complete rest in the recumbent posture, the room to be kept darkened and quiet, and the patient to be kept upon very low diet, and that only fluid. I ordered him one-half grain solid opium at once, five grains hydrate of chloral in two hours, if not asleep; the two remedies to be alternated every second hour, unless he fell asleep.

The following day my patient expressed himself as feeling comfortable; his bowels had not been moved, but he had passed his urine. I removed the ligated portion of omentum with scissors. Adhesion had taken place, and the wound was hermetically sealed. I continued the treatment. On the third day, there being no symptoms of inflammation, I lengthened the intervals between the remedies to three hours, still enjoining rest and quiet. On the fourth day he had a copious evacuation from his bowels, and, there being no symptoms of inflammation, I discontinued all remedies. The wound looked healthy, granulating finely, and he recovered without the slightest sign of peritonitis.

HÆMATOMA OF THE EAR.

BY WILLIAM KELLER, M.D.,

Philadelphia.

HÆMATOMA of the ear (hæmatoma auriculæ, othæmatoma of authors) is a tumor, which grows from the inner side of the concha auriculæ, is fluctuating to the touch, and when opened shows generally as its contents fluid blood.

Prof. R. Virchow, who compares it with the cephalæmatoma of new-born children, gives in his book on "Morbid Tumors," vol. i. p. 136, fig. 13, a very good representation of it.

Since 1833, when Dr. Bird of the insane asylum of Siegburg described this form of tumor, many cases of the kind have been observed in patients whose mental and physical energies were in a decreasing condition which would, sooner or later, reduce them to a state of idiocy.

In recent cases the ear is observed to be somewhat painful, reddened, and showing an increase of temperature; which inclined physicians to call this affection erysipelas of the ear. Soon after its appearance a kind of cyst containing blood is formed between the perichondrium and the cartilage. On close examination, small disks of cartilage are found clinging to the perichondrium, which have been detached from the cartilage of the ear.

The consideration of the origin of this tumor has led to great controversies, most authors regarding it as the result of external injuries inflicted by the nurses or by the patients themselves; which, however, cannot be considered as its cause, from the fact that patients affected with symptoms of excitement, living in the same asylum and in the same circumstances, never show this phenomenon. Though it has been stated that the Greek pancratists show in the still existing statues the same deformity of the ear which follows the absorption or evacuation of the blood, I never have observed in healthy persons similar symptoms, even after repeated injuries of the ear.

This subject has been written upon and discussed a great deal more than its practical importance would seem to demand; but, as all knowledge is useful, it seemed to me interesting to relate the explanation of Brown-Séquard, given in his recent lecture on diseases of the brain. According to this physiologist, the extravasation of the blood in the concha of the ear is caused by a lesion of the left posterior part of the brain, which may be produced in animals artificially by attacking this part of the brain. This will explain, in a reasonable and conclusive manner, a symptom whose real cause is so far unknown to us.

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

MEDICAL CLINIC OF DR. H. C. WOOD.

Reported by Dr. W. H. Parrish, Resident Physician.

A CASE OF OBSCURE MALIGNANT FEVER.

H. H., æt. 42, a common laborer, and a native of Ireland, was admitted to the drunkards' ward September 27, 1872, in a state of intoxication and in a generally depressed condition. He had been drinking hard for some time, and had been an inmate of this ward on several previous occasions. After recovery from the immediate effects of his debauch, he complained only of pain and tenderness in the lumbar region, and was walking about. He was, however, pale and weak, though he slept well at night. He was cupped over the seat of pain, and placed under tonic treatment. There was no albumen in the urine, and it was free from blood.

On the evening of October 8 he had severe pain in both knees, with some dryness and heat of skin. That evening he was transferred to the medical ward, and received Dover's powder, gr. x.

October 9.—Rested well during previous night. Received cinchoniæ sulph., gr. xx. At 11 A.M., however, had a severe rigor, followed by high fever. At 7 P.M. his temperature was 107° F., but no delirium. Pain continued in knees and lumbar region. At night again received Dover's powder.

October 10.—A.M. Felt better than on previous evening. The fever was evidently lowered, though the temperature was not taken. Received cinchoniæ sulphatis, gr. xx.

P.M.—Had a rigor, though it was less severe than on the previous day. Evening temperature 106½° F. No delirium; Dover's powder again at night. For several days there has been some diarrhœa, amounting to three or four passages during the twenty-four hours, but no tympanitis.

October 11, 9 A.M.—Patient did not rest well during last night, though no delirium was present. Temperature now is 100⅕°. He looks pale, and the tongue is dry and brownish.

12 noon.—Dr. Wood saw him. Temperature 103⅘° F. There has been no rigor to-day, but the man is evidently worse; is more restless. The abdomen is somewhat tympanitic, and the bowels continue to be loose. There is no petechial or other eruption.

2.30 P.M.—Temperature 104⅕° F. Respirations 24, and laborious; though the lungs, on auscultation, seem clear, as do also the heart-sounds. Pulse 82. There are some muscular twitchings. Delirium present, but not very marked. Patient is inclined to lie in a semi-comatose condition, with low mutterings at times. The eyes are kept closed; pupils not contracted. The patient was now put in wet sheets wrung from water of the temperature of 37° F., and then well wrapped in blankets. When placed in wet sheets, he spoke of the cold, but no shiverings attended the process. In 20 minutes the temperature had fallen from 104⅕° F. to 103¾° F. The respirations remained at 24, and the pulse had fallen from 82 to 76. There was no perceptible change in the other symptoms.

At 2.50 P.M. the same process of packing in wet sheets was repeated; temperature of the water remaining the same. In half an hour the temperature of the patient was 102° F.; a fall in that time of 1⅘° F. There was less subsultus, and the delirium was somewhat diminished. The respirations were 18 per minute, and were less laborious. The pulse was 74. He was now taken from the wet sheets and placed between dry blankets.

At 9 P.M.—Temperature 104° F. Respirations 30. Pulse 100. At midnight, and on the 12th at 5 A.M., temperature, respiration, and pulse remained the same as at 9 P.M.

October 12, 9 A.M.—Seen by Dr. Wood. Has received, this morning, fifteen grains of quiniæ sulph. by the mouth. Temperature now 106° F. Respirations 50 and quite laborious. Pulse 132 and feeble. The man is delirious; is constantly talking to himself, but becomes aroused when spoken to. There is so much subsultus tendinum that the pulsations of the radial artery can scarcely be counted. He endeavors to protrude the tongue, but seems to want the ability. Quiniæ sulph. gr. v were now injected subcutaneously.

9.30 A.M.—Temperature 105½° F. Respirations 40 and very laborious. Pulse found to be 140, though counted with exceeding difficulty in the temporal artery. Subsultus and delirium very decided. Patient lies with eyelids open and eyeballs rolled upwards but not fixed; pupils dilated. He mutters wildly and indistinctly; jerks his arms about and clutches at imaginary objects; does not protrude the tongue, and seems not to appreciate anything spoken to him. This morning he passed his fæces and urine in bed unconsciously. Now enveloped in sheets wrung from water of 49° F.

9.50 A.M.—Seems more rational.

10 A.M.—Still in sheets. Temperature 104° F. Pulse 144. Respirations 34, and apparently less laborious. Tongue is protruded more readily; it is dry and brownish.

10.15 A.M.—Pulse 140. Respirations 44, and becoming more laborious; delirium again very decided. Can with difficulty be sufficiently aroused so as to protrude the tongue. His face is covered with drops of perspiration.

10.45 A.M.—Temperature 104° F.; other symptoms as at 10.15.

12.45 P.M.—Temperature 105° F. Respirations 40. Pulse counted with uncertainty, but made to be 106. Delirium and subsultus very decided. Trachea full of râles. He will, however, protrude the tongue when aroused.

1.30 P.M.—No change in general symptoms.

3 P.M.—Temperature 108°. Respiration 42. The pulse from its feebleness and the subsultus is uncertain, but made 110; no change in the other symptoms. Patient was now taken from the sheets used at 9.30 A.M., and placed in others taken from water of 50° F.

4 P.M.—Temperature 104° F. Respiration 56. Pulse too feeble to be counted.

4.20 P.M.—Patient died.

Autopsy, eighteen hours after death. Congestion of all the thoracic and abdominal viscera; spleen somewhat enlarged and friable; liver also softened; large, and a portion of small, intestines, congested, but Peyer's patches apparently normal. Brain not examined.

Dr. Wood, after narrating the above history and presenting the specimens to the class, remarked that the case was one of malignant fever, whose character was somewhat uncertain, yet probably was a pernicious malarial combined with a typhoid. It might be malignant typhus, but the chills militate against such a view. There is a form of fever, a pyrexia, occurring in rheumatism, which presents a somewhat similar character. In it the temperature suddenly rises to an intense degree, accompanied with delirium and all the symptoms of extreme adynamia. In this case, however, there were no decided evidences of rheumatism, although there was pain in the knees and back.

I have thought it would perhaps be well to remind you of the effects of heat upon the animal economy, and it was chiefly with the view of calling your attention to this subject that I have presented this case to you to-day. If you were to place an animal in a hot box, its temperature would rise to 108° or 110° F., and in the pigeon to 120° F. With this rise in temperature there would be all the symptoms of a high fever. Prostration, weakness amounting to paralysis, coma, and death, either with or without convulsions, would be the result. Should you remove the animal, when yet alive, from this box and place it in cold water, the temperature of the water would be seen to rise and that of the animal to be lowered. With this lowering of the temperature the animal would revive, and become restored to its normal condition, if the experiment had not been carried too far. If you have a man unconscious from sunstroke, with a temperature of 108° or 110° F., and with the application of cold water reduce that temperature, consciousness will often be restored. Bleeding in sunstroke will also reduce the temperature, but its employment must not be resorted to, as the loss of blood will lessen the chance of a final recovery.

The adynamia, subsultus tendinum, delirium, and other nervous symptoms of fever, are in great measure due to the effects of a high heat on the nervous centres. Moreover, in a high state of the animal temperature there is an increased oxidation, or in other words abnormally great waste of the tissues, while at the same time gland-action is diminished by the heat itself. The channels of exit for effete matter being thus choked at the very time that there is an increased pro-

duction of such material, there is a constant accumulation of poisonous matters in the system, and a consequent aggravation of the unfavorable symptoms. It must be borne in mind, however, that by reducing the temperature we do not effect a cure, we only abate the symptoms and diminish the chances of a fatal termination.

If the patient's temperature is not more than 102° F., never use the packing; but if the temperature is 104° F. or higher, life may depend upon its use. If above 103° F., do not be afraid to employ external cold and to advocate its value. The simplest method for general use is the application of the wet sheets. The water should be cold, its temperature approaching that of ice-water. Having wrung out the sheets, envelop the patient with them, and surround him with blankets. Repeat this process every twenty minutes, until the temperature is reduced below 103° F. If the wet sheets seem inadequate, resort to the cold bath; or, as some advocate, let the bath be tepid at first, and cold water be gradually added until the temperature is sufficiently reduced. The effects obtained from the latter method are not so pronounced, but are more permanent, than when the bath is cold from the first. In Germany the patient is sometimes placed upon ice-mattresses, made of rubber, and, when used, containing pounded ice. In this way the same effects are produced, but this plan is less applicable in private than in hospital practice. You will meet with no little opposition to the application of cold to the general surface in fevers, but you can appeal not only to common sense; you can point to such records as those of the German hospitals, in the late Franco-Prussian war, when the mortality of the continued fevers was reduced by a large percentage by this treatment.

The temperature-record of this case presents also another interesting feature. Five grains of the sulphate of quinia were given hypodermically, when the temperature was 106° F., and rising. In twenty minutes there was a reduction of one-half degree, affording an instance of the very general effect of quinia in fevers. Five grains of quinine injected under the skin are equal to about fifteen grains *per orem*. The hypodermic use of this drug must not be resorted to, however, unless there is some positive and unusual indication. An abscess with a sluggish ulcer is at all times to be apprehended. If there is not a thorough solution of the drug, a few points of crystals will be left in the tissues, insoluble or nearly so, by the fluids in contact with them, thus remaining as permanent irritants. The preparation used in this house consists of water, one ounce; quin. sulph., one drachm; and tartaric acid enough to dissolve the salt; the solution to be *passed through filtering-paper*. I am not certain that tartaric acid is better than some other acids. The acid, however, whether one or the other, is not what gives rise to the local trouble. With proper precaution in the use of the preparation named, abscesses will be rare.

(To be continued.)

Caffeine (*Lancet*, Oct. 12).—In a recent number of *Pflüger's Archiv* Dr. Aubert describes some researches on this substance. Seeking to ascertain the proportion of cafeine or theine in a cup of coffee or tea, he arrived at numerical results somewhat above those of his predecessors. According to him, a cup of coffee, forming an infusion of 16.75 gr. of dry coffee-grains, contains about 0.1 gr. to 0.12 gr. of cafeine; and an infusion of 5 gr. to 6 gr. of dry leaves of very good tea contains about 0.1 gr. to 0.12 gr. of cafeine.

He studied the effect of this alkaloid on the nerves, muscles, respiratory movements, heart, and circulation. Cafeine increases the reflex excitability, and may produce tetanus. Dr. Aubert, with most authors, considers this a medullary tetanus; for it is not produced in the leg of a frog if the ischiatic nerves are cut, and it takes place in a limb the circulation in which has been stopped by a ligature before the subcutaneous injection of the cafeine into the skin of the back. An injection of 0.005 gr. into the skin of a frog, 1.20 gr. into the jugular of a rabbit, 0.200 gr. into the jugular of a dog or cat, produces tetanus. Dr. Aubert did not observe the weakening of excitability of the nerves referred to by Voit and others. According to him, the nervous excitability is altered only in the case of the nerve being plunged directly into a solution of cafeine. The muscular excitability is not affected so long as the cafeine is not applied to the muscles themselves.

Confirming Uspensky's experiments, Dr. Aubert shows that the production of apnœa by means of artificial respiration (?) counteracts the development of the convulsions produced by cafeine,—a phenomenon similar to that which Rosenthal was the first to apply in cases of strychnic tetanus, and which appears to be applicable to all tetanus produced by reflex influence. As to the dose necessary to kill an animal apnœised, they were various; 3 gr. of cafeine did not kill a dog of 10 kilos. in which artificial respiration was produced. Other dogs in the same conditions succumbed to an injection of 0.25 gr. of cafeine. Cafeine at first produces an increase in frequency of the pulse, but a diminution of its bulk takes place very quickly (one minute after the injection), and sometimes determines the immediate death of the heart. Small doses, 0.1 gr. to 0.15 gr., injected into the skin, produce no effect on the heart of a rabbit, while a dose of 0.25 gr. causes an acceleration of the heart and the respiratory movements. The increased rapidity in the heart-beats and the rise of arterial pressure observed may be attributed, Dr. Aubert thinks, to a paralysis, more or less complete, of the nerves proceeding from the ganglia to the muscles of the heart and an excitation of the arresting apparatus of the heart. He does not agree with those who say it is cafeine which gives to coffee its principal qualities. He thinks the reviving action of coffee, which makes it such a favorite beverage, is not yet scientifically explained.

Rupture of the Urinary Bladder.—Dr. Erskine Mason, in the *New York Medical Journal* for August, 1872, gives an account of a case of rupture of the urinary bladder in a man twenty-six years of age, in whom, general peritonitis being imminent, the bladder was laid open through the perineum, as in the lateral operation for stone. This was done nearly forty-eight hours after the accident (a fall down a long flight of steps), and on the thirty-seventh day he was discharged cured.

Dr. M. refers to the literature of the subject, quoting Dr. Stephen Smith's paper in the *New York Journal of Medicine* for 1851, as the best ever written upon it. In this there are tabulated seventy-eight cases, with only five recoveries. Mr. Birkett, in Holmes's "System of Surgery," quotes the records of fifty cases, all but three of which resulted fatally.

Four modes of operative interference are mentioned: 1. Opening the bladder above the pubis, as in the high operation for stone, or else simply tapping the organ in this locality; 2. Tapping the cavity of the pelvis either above the pubis, or the pelvic cul-de-sac through the rectum; 3. Perineal section, and then dilating the membranous portion of the urethra and neck of the bladder, as in the median operation for stone; 4. Opening the bladder either by the lateral or bilateral method, as in lithotomy.

The last-named is the method advocated by Dr. Mason, and successfully resorted to by him in the case he reports. He gives the credit of proposing it to Dr. W. J. Walker, of Boston.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

WHAT IS HOMŒOPATHY?

ACCORDING to the census of 1870, unless our information is wholly incorrect, the proportion of homœopathic practitioners was a fraction over seven per cent. of the whole body of the medical profession in the United States. Be it remembered that this is after over thirty years of effort to propagate the doctrines of that peculiar school, and in spite of a strong tendency on the part of physicians everywhere to investigate, and to adopt if satisfactory, whatever new principle or practice promises to aid them in the battle with disease. Can it be, then, anything but the warmest enthusiasm that enables an orator before the New York State Homœopathic Medical Society to say, "Who will deny that, at no distant date, either under the name of the Homœopathic School, or adopting a title now often used synonymously,—that of the 'Modern School of Rational and Liberal Medicine,'—we may see the two great branches of the medical profession, for many years estranged and often hostile, united in one solid phalanx, under the ample folds of that banner, unfurled to the gaze of an astonished world by the genius of Samuel Hahnemann, on which inscribed in letters of living light are the words '*similia similibus curantur*,' and, actuated by that philosophic and Christian motto, *in certis unitas, in dubiis libertas, in omnibus charitas*,' marching onwards to the attainment of conquests over disease and death, such as have never yet been depicted in the dreams of the most ardent medical enthusiast? Then will have come the millennium of medicine. God grant a consummation so devoutly to be wished!"

No doubt the homœopathists would be glad to have the profession at large adopt their absurd dogma, to which they themselves, in their practice, do not adhere. No doubt they would be glad to have us, with all the results of scientific research, and the records of past battles gallantly won or as gallantly lost, come over to their ranks. But why do they not show us one single case in which a remedy produces, in the healthy body, the genuine symptoms of a disease in which it is known to be useful? Why do they not show us that belladonna will induce something more than the most superficial and unimportant phenomena of scarlet fever? that chloral or the bromide of potassium will prevent sleep? that mercury or iodide of potassium will give rise to the essential secondary or tertiary manifestations of syphilis? How do they explain the perversity with which the entire scientific world declines to recognize them? We cannot suppose that Humboldt, Arago, Sir Humphry Davy, Agassiz, and a host of others, dead and living,—men of inquiring minds, intolerant of any bar to the freest examination of every theory or hypothesis in regard to the secrets of nature,—would have hesitated for one moment to give in their allegiance to any doctrine, if it could maintain itself by facts.

From our own free wanderings in the field of homœopathic literature, we are convinced that the more extensively regular physicians are acquainted with it, the more strengthened will they be in their sense of its absurdity. Even the advocates of that dogma find that their own school affords them insufficient nutriment; for in a recent number of one of their leading journals, out of thirty quoted items, *twenty-five* were from regular medical sources, *three* only from homœopathic; one was from a secular paper, and one was not credited at all.

We answer the question which heads this article, by asserting that homœopathy is a mere name, signifying nothing.

PREMATURE INTERMENTS.

OF all the horrors which have a fearful fascination for the human mind, perhaps that of being buried alive is the most wide-spread. And when the vast number of yearly interments is considered, it would at first sight seem as if, according to the doctrine of chances, some few persons, at least, must be consigned to the grave before the extinction of life. Every one knows of the precautions taken in

some burial-places to insure the detection of the slightest sign of returning animation; every one does not know how fruitless these have been.

The fact is, however, that in almost every instance where there is the least room for doubt, the idea must suggest itself to some one concerned. Upon no other point is certainty so feverishly sought for, so dreaded, and yet so insisted upon. Except when circumstances demand speedy burial, as in times of pestilence, this certainty is always attainable; and it is in such exceptional cases, we believe, that all the alleged detections of premature interments are said to have happened.

One fact has singularly escaped notice; and that is that, should a living person be buried, the fatal event must take place not only quickly, but easily. Under no circumstances can life be maintained without respiration; and the carbonized air enclosed within the narrow space of a coffin would in itself be a narcotic which would prevent any return of consciousness.

THE HORSE-INFLUENZA.

OUR readers will have had such a surfeit of items in the daily papers with regard to the influenza now prevailing among animals of the horse kind, that we propose only to call attention to a few of its more remarkable features.

In the first place, the singular rapidity of its progress precludes the idea of its spread by contagion. It was first known in Canada, less than six weeks ago, and since that time has spread over the whole of New York, and the Eastern States, and Pennsylvania, and is now (November 9) felt in Baltimore. Only if very large numbers of horses were moving in this southward direction would the theory of its propagation in this way be at all tenable. Then, again, it has affected all the horses, in small villages and in the country. Some atmospheric convection, independent of wind-currents, must necessarily be the means of its spread.

Secondly, the universality of the disease is to be noted: we may perhaps say that not a single horse has escaped, as even those which have not been actually laid up have shown the effects of its depressing influence. Mules seem less susceptible to it than horses, but many of them, and we believe all more or less, have felt it. Within the memory of the oldest horsemen there has never been such a visitation; and indeed the peculiar inconveniences entailed are such as would have impressed the recollection of an epizootic of the kind upon the minds of the public as well.

Thirdly, the exemption of all but animals of the horse kind. There have, it is true, been a few cases of influenza in the human species, but the health of the city may be said to be exceptionally good, and the mortality returns are very small. The vague rumors of horned cattle being affected, which have prevailed from time to time, are not confirmed so far.

The deaths seem to have been limited to such horses as were previously in poor condition, from age, over-work, or disease; some also, from neglect in the early stages of the epizootic, have been attacked with fatal pneumonia. It may be that, like the poison of scarlatina or smallpox, the peculiar cause of this disorder is in some cases so virulent as to hurry off the animals affected before the symptoms are fully developed; but of this the evidence is not yet satisfactory. Another cause of death has doubtless been the working of horses before they had fully recovered their strength, congestion of the lungs being especially apt to occur under such circumstances, and to run on into fatal pneumonia.

We trust that from the intelligent and careful investigation of this remarkable scourge, there may be derived some facts bearing upon the natural history and mode of propagation of the zymotic diseases which affect the human family.

LEADING ARTICLES.

"HONOR TO WHOM HONOR IS DUE."

UNDER the above caption, the *Nashville Journal of Medicine and Surgery* (Sept. 1872) finds fault with us for quoting, from *The Practitioner* of June last, a statement by Mr. Poland, made in the Guy's Hospital Reports, in regard to the treatment of subclavian aneurism by ligation of the innominate artery, without reference to the sole successful case, that of Dr. Smythe of New Orleans. We certainly should have called attention to so brilliant a triumph of surgery by one of our own countrymen; and it was solely by inadvertence that the omission occurred. It gives us pleasure now to quote the account of the operation as given in the *Nashville Journal* for October; merely premising that not only Erichsen and Gross, but Ashhurst, Hamilton, and Sir William Fergusson (with some trifling inaccuracies, in his "System of Practical Surgery," ed. of 1870), speak of the case:

"The account of this singularly successful operation was published by Dr. Smythe in the *New Orleans Medical Record*, it having been performed on the 15th of May, 1864, in the Charity Hospital of that city; the

operator was assisted by Drs. D. L. Rogers, of New Rochelle, New York (not by Dr. J. Kearney Rodgers, of New York City, now deceased), Holliday, Boyer, Bacon, and Orton. Ligatures were applied to the innominate and right carotid arteries. Fourteen days afterwards a hemorrhage occurred to syncope, but was arrested in two days by lint and compression with a weight. Small shot were next poured into the wound, and the ligature to the brachio-cephalic artery pulled away. On the 17th of June, thirty-three days after the operation, about half of the shot were picked out, when the bleeding recurred. July 5, he had a terrific hemorrhage, and the patient again fainted. July 8, fifty-four days after the first operation, the vertebral artery was tied. The circulation in the right arm now became very feeble, so that the brachial artery appeared occluded, and the limb œdematous, but in a few days these unpleasant symptoms subsided. The ligature to the vertebral came away on the tenth day after it was applied, when the patient gradually improved, and was pronounced well the 15th of September, four months from the date of the operation upon the brachio-cephalic and right carotid arteries, being the first and only successful application of a ligature to the innominate.

"The operator, in this case, deduces the important lesson that whereas, in twenty recorded instances, ligature to the innominate, or subclavian artery in its first portion, *without that of the vertebral*, has proved fatal, it is reasonable to suppose that it would always do so."

THE RECENT ALLEGED DEATH FROM ETHER.

IN the last issue of this journal (Nov. 9, p. 93) we quoted at large the report given in the *New York Medical Journal*, of a case in which death was ascribed to the administration of ether. We had intended to analyze this record, but have been anticipated by Dr. H. J. Bigelow, a portion of whose remarks on the subject we quote from the *Boston Medical and Surgical Journal* of October 24:

"For ourselves, if called upon to indicate, in the absence of complete evidence, the probable cause of this death, we should perhaps rearrange the statement somewhat as follows:

"A man of nearly seventy years, reduced by a fracture near the trochanter, of eighteen days' standing, and by pneumonia, was subjected to a somewhat protracted inhalation before coming under the influence of ether. At the end of ten or twelve minutes his breathing became so feeble and irregular that etherization was suspended and artificial respiration was resorted to. In the course of four or five minutes more, there being some muscular action, the respiration being also stronger, and the pulse better, the ether was again administered, but the same bad symptoms soon supervened. On examination, the pupils were now found to be dilated. The heart was still beating (although there was probably no pulse at the wrist), but attempts at resuscitation were this time ineffectual.

"Such an account would better accord with previous experience. The vitality of a patient enfeebled by age and disease proves to be easily depressed, and, after giving to the operator good and sufficient warning of his enfeebled condition, he succumbs; an occurrence which may serve as a fresh and salutary lesson to the surgeon to exercise care during anæsthesia by ether, and still more by chloroform, of a system thus depressed; but an accident we believe to be impossible to ether, with the pulse held and the respiration attended to.

"On the other hand, we repeat, no precaution yet devised by human ingenuity will prevent the insidious shock of chloroform, in even a small dose, from occasionally and abruptly killing a healthy subject. This is the peculiar and usual *death from chloroform;* and of its approach neither pulse nor breathing gives indication."

REVIEWS AND BOOK NOTICES.

ON THE TREATMENT OF DISEASES OF THE SKIN, WITH AN ANALYSIS OF ELEVEN THOUSAND CONSECUTIVE CASES. By Dr. McCALL ANDERSON, Physician to the Dispensary for Skin-Diseases, and to the Cutaneous Wards of the University Hospital, etc. etc., Glasgow. Crown 8vo, pp. 180. London, Macmillan & Co., 1872.

The book before us consists of two distinct parts: the first, devoted to an analysis of eleven thousand consecutive cases of skin-disease; the second part, in no way connected with the first, to the therapeutics of diseases of the skin. Ten thousand of these cases were met with in hospital practice, while the other thousand came under observation in private. The first part of the book, the analysis of the cases, appeared about one year ago in the columns of the *Lancet*, but the chapters on therapeutics, if we are correct, are new to the profession.

The analysis of this vast number of cases is extremely interesting, especially when compared with diseases of the skin as they occur in our own country, for it will be noticed at once how prevalent some of these affections are in Scotland, and how rare they are in America. For example, out of the ten thousand hospital cases there were two thousand five hundred and twenty-seven cases of scabies and as many as one hundred and fifty-six cases of tinea favosa; large numbers when compared with the statistics of our own hospitals and dispensaries. Did space permit, we should take pleasure in speaking of the work more at length, for it is a little volume which if read cannot fail to leave a most favorable impression. The chapters are written in an easy, readable style, and the cases are described with great accuracy and vividness, contrasting most pleasantly with many descriptions of these diseases which we are compelled to read. The second part of the work, on therapeutics, is particularly valuable, giving as it does merely the writer's *own* experience, and not the experience of others minus the author's, as is too apt to be the case with writers of the present day. One has in these few chapters on therapeutics the experience of one of the fore-

most of modern dermatologists, given in a simple, straightforward manner, comprehensible to all. The volume is not a text-book, but reads like a series of short essays, concisely worded.

THE PHYSIOLOGY OF MAN. By AUSTIN FLINT, JR., M.D. Vol. iv. The Nervous System. New York, 1872.

However much we may regret that so able an investigator as Dr. Flint should be kept from original research by any other form of labor, no one can fail to see in his text-book how good a thing it is sometimes to have a review of this special science by one so gifted as an experimentalist. In fact, no one but a biologist familiar with laboratory-work could have written just the kind of volume before us, and the criticism made by one worker on the work of another is far more apt to be shrewd as well as charitable than if it is to be done by closet-scholars. The day, we trust, is over when any chair of physiology in our great schools can be filled by men who never made an original research and whose lessons must lack that vigor and freshness which comes only of having practically learned what they profess to teach. The laboratory should be to the professor of physiology what the hospital clinics are to the professor of practice. And what applies to the oral teacher fits equally well the case of the maker of text-books. He will teach best and write best who has learned his lessons from the great book of nature; and just such qualification Dr. Flint brings to his task. The result is a volume on the most difficult part of physiology, so clear, so well arranged, so concise and so interesting, that it is the book of books, both for the student and the doctor. If it errs at all, it is in the direction of too great brevity; a pardonable error nowadays. On the other hand, as models of terse physiological teaching and honest criticism, we may point to the chapters on the cranial nerves and to that on the basal ganglia of the encephalon. The latter is remarkable for the decisive refusal to concede points unproven by research, and for the frankness of admission as to our defects of knowledge.

One of the best-written chapters in the volume is that on the cerebellum, but we doubt sincerely as to whether its conclusions will be received by most biologists as correct. Indeed, had the author treated the subject with the severe logic which marks the portion last mentioned, we think he could hardly have reached the belief that the cerebellum is the organ of co-ordination of muscular acts.

The style of the book is distinct and simple; no sentence needs to be read twice because of any obscurity of statement. As to the engravings, there had better have been many more, or none.

TWENTY-NINTH ANNUAL REPORT OF THE MANAGERS OF THE (NEW YORK) STATE LUNATIC ASYLUM FOR THE YEAR 1871. Transmitted to the Legislature March 6, 1872. 8vo, pp. 87. Albany, 1872.

This report is a valuable contribution to the literature of insanity. Besides the regular formal report of the asylum at Utica, it contains accounts of twenty-seven fatal cases, in fifteen of which post-mortem examinations were made. An interesting outline of the action of the State of New York in regard to the care of the insane for the past twenty years is also given.

BOOKS AND PAMPHLETS RECEIVED.

Report on the Structure of the White Blood-Corpuscle. (Extract from the Transactions of the American Medical Association.) By Joseph G. Richardson, M.D. Philadelphia, 1872.

The Physician's Visiting List for 1873. Philadelphia, Lindsay & Blakiston.

Modern Medicine: a Lecture delivered October 7, 1872, Introductory to the Course at the Jefferson Medical College. By J. M. Da Costa, M.D., Professor of the Theory and Practice of Medicine. 8vo, pp. 38. Philadelphia, J. B. Lippincott & Co., 1872.

GLEANINGS FROM OUR EXCHANGES.

REPORT OF A CASE OF CÆSAREAN SECTION (*Lancet*, Oct. 12, 1872). By G. E. Yarrow, M.D., L.R.C.P. Lond., Medical Officer to City-Road Workhouse, etc.—On Sunday, September 15, I was summoned by a midwife attached to the City of London Lying-in Hospital, to see Maria N——, on whom she had been in attendance upwards of twenty-four hours.

On my arrival at the house, at 1.30 P.M., I learned the following particulars: The patient was thirty-four years of age, and had been married two years and a half. This was her second pregnancy, she having aborted on the previous occasion at the third month. She was the subject of rickets, had a lateral curvature of the spine in the lower dorsal region, and a curve forwards in the lumbar region. The midwife informed me that the liquor amnii had escaped at 2 P.M. the previous day, since which time there had been little progress in the labor, and the pains were ceasing.

Upon examination *per vaginam* I found that the head of the child was pressing upon the promontory of the sacrum, and could not enter the pelvis, the antero-posterior diameter of which was about one inch and a half. I saw the impossibility of relieving the patient by craniotomy. Choice, therefore, had to be made between cephalotripsy and Cæsarean section. Under these circumstances, I sought the counsel of Dr. Burchell, the surgeon-accoucheur to the hospital. Upon examining the patient, he was of opinion that Cæsarean section would give the best chance to mother and child, in which I fully concurred.

In consequence of the poverty of the patient, and her not having had proper nourishment for several days, I suggested her removal to the workhouse infirmary, which was gladly acceded to by the patient and her friends.

At 4 P.M., all being in readiness, Dr. Aubery (Dr. Burchell's assistant) administered chloroform, and the patient was soon under its influence. Dr. Burchell, well supplied with hot wet flannels, stood on the left side of the patient, I, standing on her right, made an incision about five inches in length, slightly to the right of the linea alba, dividing the skin, fat, and rectus muscle. I then divided the two layers of peritoneum on a director. The question of the position of the placenta then occurred to me, but I could not feel any pulsation by placing my hand on the uterus; and Dr. Burchell urged me to go on with the incision through the uterine wall; this I did, and, strange to say, cut immediately upon the placenta, which was evidenced by a gush of blood. To complicate matters, an arm came through the incision. I at once enlarged the opening, pushed back the arm, removed the placenta, and, seizing the legs, withdrew the child, who gave evidence of vitality, and was removed by a nurse during the latter stage of the operation. Dr. Burchell held the edges of the uterine wound closely in contact with the edges of the external wound. No intestine was seen, but a piece of omentum came down, and was pushed up out of the way. The uterus now began to contract, and Dr. Aubery drew the edges of the external wound together by inter-

rupted suture, over which lint and strapping were placed, and over all a broad flannel bandage. The patient was then left undisturbed for two hours, during which time she took some brandy and water and beef-tea.

I saw her at 6 P.M., and superintended her removal from the labor-bed. She expressed herself as feeling comfortable. 9 P.M., has taken small quantities of brandy-and-water, beef-tea, and ice. Pulse 120.

The patient after this presented the symptoms of a low form of peritonitis, and died at 12.45 P.M., on the 20th, nearly five days from the time of the operation.

Autopsy.—4 P.M.: Body badly nourished; measured only four feet two inches. The thighs were bent forwards, and legs outwards. Between the sutures the wound was gaping. The uterine wound measured one inch and a half; was open and smelt very offensive; there was a small quantity of dark-colored blood in the pelvis. The intestines and their peritoneal covering were healthy, but that investing the posterior portion of the pelvis was inflamed. With the husband's permission I have possession of the pelvis, which I propose adding to the collection of the Obstetrical Society.

The infant, a female, is progressing very satisfactorily, and has been taken from the workhouse by the father.

The *British Medical Journal* of October 19 says that this operation was recently performed in a case of extra-uterine fœtation, at the Hospital for Women (London), with a fatal result.

History of Anæsthetics (Dr. G. Vivian Poore, *Lancet*, October 12, 1872).—A few words on the history of anæsthetics will not, I think, be unprofitable. To us whose medical recollections do not extend very far it is a matter of wonder that capital operations could be performed at all in what may be called the pre-anæsthetic period. A few years back I met a middle-aged sailor whose thigh had been amputated in the Black Sea, during the Crimean war, without chloroform. I inquired of him if the pain were not something very awful; but he assured me that in his case the suffering was not very intense, "for you see, sir," he said, "they gave me the best part of a bottle of rum before they began, and I didn't find much of it." In point of fact, they first made him drunk, and then operated. There is no doubt that before the introduction of chloroform it was very commonly the custom to give various narcotics and stimulants before submitting patients to the knife. Dioscorides, a writer on materia medica who lived A.D. 50, says that "decoction of mandragora is to be given to those who require to be cut or cauterized, when, being thrown into a deep sleep, they do not feel any pain." This may be regarded as the first mention of anæsthetics, and there is abundant proof that between A.D. 50 and 1846, this rough and imperfect form of anæsthetisation was frequently had recourse to. About the year 1798 Sir Humphry Davy discovered the anæsthetic properties of nitrous oxide; and in 1844, Dr. Horace Wells, of Hartford, Conn., U.S., had a tooth removed without pain whilst under its influence. In 1818 an article appeared in the *Quarterly Journal of Science and Arts* in which the resemblance between the effects of the vapor of ether and nitrous oxide is pointed out. In September, 1846, Dr. Morton, of Boston, U.S., drew a tooth while the patient was under the influence of ether vapor; and in the following month Dr. Warren, of Boston, removed a large and very vascular tumor from the lower jaw, the patient being anæsthetized. Anæsthetization had its origin in Boston, U.S.

In December, 1846, ether was first used in this country by Mr. Robinson, a dentist of Gower Street, who first administered the ether and then pulled the tooth. The first operation of magnitude which was performed under ether in this country was an amputation of the thigh by Liston in the theatre of University College Hospital, on December 21, 1846. I have had a description of what took place from an eye-witness. Liston informed the students that they were going to try a "Yankee dodge for making a man insensible to pain, and that Mr. Squire, the chemist, was going to administer ether." While the etherization was progressing, Liston stood in a semi-impatient and incredulous way, balancing his knife and playing with its point. At last came the signal "He is ready, sir," and in another instant almost the thigh was off, the patient not taking the least notice of the operation. Liston was astonished, as well he might be, and summed up his opinion of etherization in these words, "Good God! why, it's better than mesmerism!"

In 1847, Jacob Bell and Sir William Lawrence used chloric ether; and in November of the same year, Sir James Simpson, at the suggestion of Mr. Waldie, of Liverpool, was led to try chloroform as an anæsthetic, and with what result you all know.

On the Use of Baths in Acute Rheumatism, attended with Head-Symptoms and High Temperature. By Dr. Henry Thompson, of the Middlesex Hospital (*British Medical Journal*, August 3, 1872).—A case has lately occurred in the Middlesex Hospital illustrating the beneficial effects of the bath in acute rheumatism, attended with head-symptoms and high temperature. Dr. Thompson, in his remarks on the case, observes that it is only now and then, in a few rare and scattered instances, that acute rheumatism proves fatal by an unexpected outbreak of overpowering nerve-symptoms, and such a result would have ensued in the instance recorded, according to Dr. Thompson's opinion, if the bath had not been used. The fatal issue in similar cases was formerly referred to the occurrence of metastasis, meningitis, and the like, but now it is said to be due to hyperpyrexia. To this last term, if used in a practical sense, Dr. Thompson makes no objection, as the importance of very high temperature cannot be overrated as a symptom; but in a pathological point of view he thinks that its influence has been exaggerated, for the nerve-symptoms invariably precede the hyperpyrexia. Nevertheless a high body-heat, ranging from 108.6 degrees to 112, is incompatible with life, and it is necessary to lower it by such means as are available, and Dr. Thompson thinks that the use of the bath is the best therapeutical agent. The temperature of the bath is 90 to 95 degrees in the first instance, and is gradually reduced by the addition of cold water to 70 degrees. The clinical thermometer must be practically the best guide for the employment of the bath, for at a lower body-temperature than 102.5 degrees it would not be desirable to use it. It is important to observe that, in the case recorded by Dr. Thompson, the most severe and extensive chest-complications, such as pneumonia, pleurisy, bronchitis, and pericarditis, underwent no perceptible change for the worse in consequence of the bath. The case itself is recorded at length, with the thermometrical observations taken at frequent intervals from day to day, and the effects produced by the baths, which were eight in number, are accurately noted. The case, however, although terminating in recovery, was a tedious one, and the convalescence was exceedingly slow.

Carbazotate of Ammonia to Supersede Sulphate of Quinine (*Ib.*).—In a recent communication to the Société de Thérapeutique de Paris, Dr. Dujardin-Beaumetz investigated the character, properties, and uses of carbazotate of ammonia (combination of ammonia with carbazotic, picric, or trinitrophenic acid), especially as a therapeutic successor to sulphate of quinine. After relating the successful employment of this salt in inter-

mittent fever by Braconnot, Calvert, Aspland, Bell, Chazereau des Thureaux, Manopa, etc., Dr. Beaumetz gave the results of six cases treated by himself, and of various experiments carried on upon animals and man. Like quinine, carbazotate of ammonia diminishes the strength of the pulse, and brings on heaviness, cephalalgia, and even delirium, and is eliminated by the kidneys. These effects have again been stated by Dr. Beaumetz. As to the clinical results they may be summed up thus:—Case 1: Quotidian ague; recovery after four days' treatment; daily dose from one to two centigrammes of the substance in pills. Case 2: Quotidian ague (sulphate of quinine having been given without effect); complete recovery after five days; five pills used. Case 3: Tertian ague; recovery after eight days; two pills a day. Case 4: Quotidian ague; recovery after eight days. Case 5: Facial neuralgia; speedy recovery. Case 6: Tertian ague; sulphate of quinine had been administered during seventeen days with no result; completely cured after the administration of six centigrammes (about one grain) of the salt for two days.

Dr. Beaumetz draws the following conclusions from the various facts observed in his six cases or brought out by his experiments: Carbazotate of ammonia is very efficacious in intermittent fever; the suppression of the paroxysms may be obtained by the use of two to four centigrammes (one-third to two-thirds of a grain) daily; given in these doses the drug has never had any bad effects, and seems to be better tolerated than sulphate of quinine; the physiological action of the substance closely resembles that of sulphate of quinine.

Dengue (*Madras Monthly Journal of Medical Science*, May 1872).—Surgeon Sparrow, of the 89th Regiment, gives an account of the dengue fever as observed in Cannanore, among officers and troops who had just arrived from Aden, where dengue was prevailing. Isolation proved successful in preventing the extension of the disease. A general uniformity of symptoms characterized all the cases. There was a sudden invasion of the disease by pain of the limbs, followed by the hot stage of fever, intense frontal headache, furred tongue, acute pain of the joints (the most marked symptoms during the progress of the disease), the pain so severe in some cases that the patient was seen to fall to the ground as though paralyzed; the stage of pyrexia lasted three days, when, with the exception of continued pain in the joints, all the symptoms were relieved; there was a clean tongue, normal pulse, cool and moist skin. On the fifth day a burning pain of the palms of the hands was complained of; on examination they were found to be swollen and covered with red-colored blotches. The eruption then extended up the arms, and in most cases the entire body became covered with the erythematous eruption, resembling that of scarlatina; fever returned and lasted twenty-four hours; after which there was a gradual abatement of the symptoms, but soreness of the feet and swelling of the hands, with inability to close them, continued. In many the pains in the joints continued at intervals for a month. No delirium attended any of the cases. Except in one or two cases where there was slight diarrhœa, there were no sequelæ; relapses, consisting of increase of articular pain, with slight return of fever, were observed in three or four.

Aspiration in Hydrocephalus (*Deutsch. Archiv für Klin. Med.*, July 26, 1872).—Dr. Buttenwieser communicated a case of hydrocephalus in a boy of 26 weeks of age treated by aspiration with the syringe of Bergsen. The circumference of the head measured 54 ctm. The deformity of the head was very marked (*tête carrée*). The needle was entered to the left of the median line at a point of greatest prominence. The body of the syringe filled at once, and was emptied into a glass through the side tube. After the removal of about ¼ ℔, both sides of the head had collapsed considerably and the needle was withdrawn. The whole operation was performed without accident. The child cried throughout, and became pale towards its close.

Chemical examination of the fluid showed water 98.34, albumen 0.33, organic matter 0.41, ash 0.82. The organic matter consisted of fat, cholesterine, and traces of urea. The ash was chiefly composed of common salt and phosphate of soda.

The wound was closed with plaster. For a few days there was no change in the child's condition, but the fluid had reaccumulated in 24 hours to its former amount. Compression with plaster bandages was now undertaken. The child became worse, the fluid continued to accumulate with all the symptoms usual to compression, and death occurred in eleven days after the operation.

Hydatid Cysts passed by the Rectum.—Dr. C. C. Sherard, of Mobile, Ala. (*Med. and Surg. Reporter*, Aug. 17, 1872), records a case in which a woman, aged twenty-nine, after nearly two weeks of pelvic trouble, with supposed retroversion of the womb, the replacement of which was twice attempted, suddenly expelled *per rectum* "a large quantity" of hydatid cysts; the discharges continuing for five days. An attack of peritonitis then declared itself, and lasted some days. On the 21st, another series of evacuations of hydatid cysts began, and lasted thirty-six hours. After this she had a thrush-like exudation in the mouth and fauces, and then a severe "pelvic cellulitis" with abscess. The "ulcer in the bowel, where the hydatids had passed through," was discovered by Drs. Gaines, Gilmore, and Sherard, by rectal exploration. During the night of May 2, about a quart of very fetid watery liquid gushed from the vagina, and this flow continued all day. May 5, "she passed a lump from the rectum about the size of a hen's egg, which she says looked like a piece of boiled gristle; from her description of it I was induced," says Dr. S., "to believe it was the base of the hydatids." Recovery was complete by the 10th of May.

Sciatic Hernia.—Dr. Marzolo of Padua has related the case of a woman who first came under notice in 1847, at the age of 30. Ten years previously she had observed a small swelling in the left buttock; it disappeared when she lay down, but reappeared in the erect position and gradually increased. She had had four abortions, and borne one healthy child. When seen, the hernia extended over a part of the buttock, as far as the trochanter, and forward to the groin. The abdominal wall was retracted. On lying down or sitting, the greater part of the contents of the swelling could be returned into the abdomen; defecation and coition were difficult. Last year the patient again came under observation. Her condition had changed but little; but the hernia was now irreducible, and at the lower part there were dulness on percussion and fluctuation. A puncture was made, and nine litres of fluid removed. Diarrhœa set in, and the patient soon died. No post-mortem examination could be obtained.

Chloride of Potassium in Epilepsy (*Echo Méd. et Pharm. Belge*).—Dr. Lander advocates this salt as better than bromide of potassium in epilepsy. He finds it is more active, costs five-sixths less, and has not the inconvenience of the secondary effects of bromide of potassium. He begins with small doses, and has continued the use of the drug for several months without any bad consequences, in daily doses of from 3 grammes 50, to 5 grammes 50 (1 to 2 drachms). Moreover, Dr. Lander thinks that the bromide is converted into a chloride in the stomach, so he suggests the immediate use of the chloride.

Enormous Brain in a Boy.—The *British Medical Journal* of October 19 says, "A boy thirteen years of age died in the Middlesex Hospital, a few days since, from injuries caused by a fall from an omnibus. His brain after death was found to be very large, and to weigh fifty-eight ounces,—about eight ounces above the weight of the average male adult brain. He had been a particularly healthy lad, without any evidence of rachitis, and very intelligent."

MISCELLANY.

The *Lancet* of October 12 says, "The success of the British Association for the Advancement of Science has stimulated our neighbors across the channel to imitate its constitution and proceedings; and the late meeting at Bordeaux may be regarded as representing the complete formation of the corresponding Association in France. Already upwards of 700 members have enrolled themselves on its books, and its capital amounts to 137,000 francs, or to between £5000 and £6000. M. Combes was originally nominated President, but died almost as soon as the Society was formed. M. Claude Bernard was then chosen, and is the present and practically the first President. He too, however, was unfortunately prevented by indisposition from making an inaugural address, and the duty devolved upon M. de Quatrefages. In the course of this, after referring to the disasters of the country, he observed that in these days the greatness of a State is not measured alone by the extent of its territory or the number of its inhabitants, and competition does not take place alone on the field of battle. "Now more than ever the domain of intelligence, the platform of science, have also their battles, their victories, and their laurels. The scientific worker is also a soldier, and can experience the excitement of strife and the intoxication of success; but, more fortunate than the soldier, he has no general above him who can carry off the honor that should belong to another. However small may be his merit, he at least receives all the credit due to him. The successful worker, moreover, not only experiences the pleasure of gratified self-love, but he may feel also with patriotic ardor that his work reflects honor upon his country. . . I have recently assisted at similar meetings," says M. de Quatrefages, "in Belgium, Italy, and Denmark,—the first, in the calm of her neutrality; the second, in the midst of her efforts to possess a new future; and the third, in grief and sorrow,—and find that they all obtain in the double love of science and of country stimulants or consolations unknown to ambitious egotism. At Brussels, in the celebration of the hundredth anniversary of the Academy, it was said, 'Belgium is but little in the political world, but it has enlarged that of the intellect, and shall do so still more.' At Bologna, in presence of the splendors of an extinct civilization, they said, 'We will resuscitate it.' At Copenhagen they said, 'Denmark may perhaps disappear from the map; we will make it live again in our works.' France, too, has its bleeding wounds and material mutilation; to men of science it remains to bring noble compensation for its evils."

The sections into which the Association has been divided are nearly the same as those of the English Association,—comprising mathematics and astronomy, navigation and the military art, physics, chemistry, meteorology and physical geography, geology and mineralogy, botany, zoology, anthropology, medicine, agronomy, geography, economy, and statistics.

At this the first meeting several general addresses were read: one by M. Laussedat, on the services that modern science can render the military art; a second by M. Le Fort, on reform of French military surgery. The papers read appear to have been both numerous and interesting. They include one by M. Dupuy, on animal heat; one by M. Bitot, on the use of veratria in cardio-vascular affections; and others on lympho-sarcoma, on the recovery of sensibility and motor-power after section of nerves, on a new mode of termination of nerves, and on the physical contractility of the non-living animal tissues, by MM. Trélat, Rubio, Bouillaud, and others.

We can only wish the Association God-speed, and hope it will advance with steps as rapid as those of the British Association.

Quadruple Amputation.—In the autumn of 1869, Dr. Begg, of Dundee, amputated the whole of the extremities in the case of a young woman named Robertson, whose hands and feet had assumed a gangrenous condition, the proximate cause of which was considered to be embolism. After the operation, a subscription was raised, and the poor woman sent to London, where, at the request of some influential friends of hers, Mr. Heather Bigg constructed for her some especially devised prothetic appliances, in which the distinguishing features were, that the artificial hands were automatic in action, opening and shutting their fingers at the will of the patient. This peculiar prehensility gave her the power of grasping even so small a substance as a crochet-needle, and enabled her to gain a comparatively lucrative livelihood by making shawls, etc. So admirably did she do this, that one was sent by her to the Queen, who, struck by the excellence of the workmanship and the remarkable means by which it was accomplished, generously gave the poor woman £5. The artificial legs were also so arranged as to enable her to stand and walk with the aid of crutches. Three years have passed since she first began the use of extraneous appliances, and she now writes an admirable hand, besides knitting, feeding and dressing herself, etc. "In a communication made by her a few days since, which is now before us," says the *British Medical Journal*, "she writes that she can walk alone quite easily with the aid of crutches, and that no one can observe the cause of her lameness. The case is one of no common interest, owing to its being the only one on record in which the whole of the four extremities have been removed. Apart from its pathological value, as indicating how

life may be saved by judicious interference in cases of embolic gangrene, there remains the gratifying result that, by the use of ingenious mechanism, the patient is enabled to gain her living, whilst presenting nearly the same external appearance as if she still retained possession of her natural limbs. It is a unique case, and a triumphant instance of mechanical ingenuity."

A Reliable Test of Death.—In 1870 a prize of twenty thousand francs was offered by the Academy of Sciences of Paris for the discovery of some positive sign of death, one which can be applied at any time by non-medical persons, requiring no apparatus, and unmistakable in its indications.

Of course a number have been proposed. The latest, and so far the best, is that suggested by Dr. Hugo Magnus, of Breslau, in *Virchow's Archiv* for August 19, 1872. It is simple, physiological, and conclusive, being based on the fact that when the circulation positively ceases the man is dead. No matter how profound the coma or trance, no matter how death-like the lethargy, some circulation *must* continue, be it ever so sluggishly. Once it has stopped, resuscitation is impossible.

All that one has to do, therefore, is *to tie a string firmly around the finger of the supposed corpse.* If there is the least spark of life left, that is, if the blood circulates at all, the whole finger, from the string to the tip, will gradually turn a bluish red, from the engorgement of the veins. Nothing else, no post-mortem infiltration, can be mistaken for this appearance.

The *Medical and Surgical Reporter* justly attributes great importance to this suggestion, and considers it the most practical and satisfactory yet made.

Medical Reform in France.—*Le Mouvement Médical* says that it is announced that the Government will submit, at the next session of the Chamber of Deputies, the scheme of a law looking to the establishment of several Faculties of medicine in France. It is contemplated to greatly enlarge both the buildings and the means of instruction of the schools at Paris and Montpellier; and new schools will subsequently be created at Nancy, Lyons, Bordeaux, Nantes, Lille, and Toulouse. The Faculty at Nancy will be specially charged with the duty of following the improvements made (*les progrès accomplis*) in the German universities, and communicating them to the other Faculties in France. The latter will be more particularly devoted to the training of medical practitioners.

The writer remarks, "If the Government really entertains the designs ascribed to it, we should be glad to know how the sentinel-faculty at Nancy is to instruct the rest, and what the professors of these other schools will have to do if they are not to keep themselves *au courant* with the work going on in all countries."

Inoculation of Smallpox by Skin-Grafting (*Brit. Med. Jour.*).— In a recent discussion on skin-grafting in the Berlin Medical Society, Herren Hahn and Zülzer referred to an instance recorded in the *Deutsche Militair-ärztlich. Zeitschrift,* in which portions of skin for grafting were taken from the amputated limb of a woman in whom, the day after the operation, the eruption of smallpox appeared and proved fatal. One of the four patients on whom the skin was grafted had smallpox in a mild form. He was, however, a man of intemperate habits, and died, according to Herr Zülzer, of pneumonia.

A Medico-Legal Case (*Lyon Médical,* September 1, 1872).—A female at full term of pregnancy died of cholera in Vienna. The physician in attendance was arrested for not having performed the Cæsarean section *post-mortem.* The college of physicians of the Vienna faculty, being interrogated as experts, declared that the physician did not arrive until one hour after the death of the woman, and that the fœtus does not survive the death of its mother more than five or six minutes. Besides, the annals of science show that in cases of cholera, the death of the fœtus always precedes the death of the mother. The physician was accordingly discharged.

Prince Bismarck, says the Vienna correspondent of *Le Mouvement Médical* (Oct. 4), has proposed the foundation of an imperial institution to deal with all questions concerning public health. Among the medical authorities consulted in regard to it are mentioned Warrentrapp of Frankfort, Reclam of Leipsic, and Hirsch of Berlin. The law carrying out this idea was to be speedily submitted for consideration by the Council of the Confederation.

The same writer notes the death of Prof. Ebert, director of the clinic for children's diseases at the Charité Hospital in Berlin. His place will probably be taken by Dr. Henoch.

Worcester City Hospital.—By the fortunate termination of a will case, the city of Worcester becomes possessed of about $100,000, to be held in trust for the establishment of a free hospital. The property was left to the city by Deacon I. Washburn, as a memorial of his two deceased daughters. The city also holds in trust a large bequest (nearly $500,000) from the late George Jaques, for the same purpose. It is proposed to unite the two bequests, for the more satisfactory accomplishment of the object.

Donations to Hospitals.—The National Orthopædic Hospital (London), the Infirmary for Epilepsy and Palsy (London), and the East London Hospital for Children, have each received donations of £1000, anonymously. The latter is the fourth gift of the same amount received by that institution from the same source.

A useful form of disinfectant has been recently brought into use in England, namely, sawdust soaked in a saturated solution of carbolic acid. It is convenient for many purposes, cheap, easily prepared, and not liable to be swallowed accidentally, as ordinary liquid disinfectants are.

Dr. C. B. Brigham, of Boston, was, on the 8th of August last, decorated by the Emperor of Germany

with the Imperial Order of the Crown, for his valuable and meritorious services rendered alike to wounded German and French soldiers in the hospital at Nancy in the recent war.

The Lyons Medical Congress.—A French correspondent writes to the *British Medical Journal*, under date of the 27th September, "You have announced the programme of the Medical Congress of Lyons, and we have realized it. I know not how to figure to you the events of this Congress, so as to give you a lively image of what has passed. After taking part in your English meeting of the British Medical Association, I see here something so different that it afflicts me to describe it to you. Want of order, want of brevity, want of arrangement, want of practical common sense,—an egotism which sacrifices one's multitudinous surroundings to one's personality,—the desire to appear wise, the love of long-sounding phrases, want of conscience and of severe introspection,—that is how the work of my own compatriots now shows itself to me when I come to it fresh from the emotions awakened by your grand, quiet, well-ordered, unostentatious British Medical Association. We have no sections, no limit of speech, no sifting committees; the whole Congress must assist at the apotheosis of each man's vanity; and hours pass themselves in diffuse, wordy, and I-would-be-eloquent orations, which have commonly been only the warmed-up dishes that have graced more than once the banquets of our French societies, and for which now a provincial celebrity is sought. This is considered improving the occasion. Each orator, as he descends from the tribune which he has occupied for half an hour or an hour, asks his friends and himself, not 'What have I taught? How have I advanced the objects of the Association?' but 'Have I made a brilliant improvisation?' 'Was my speech full of *entrain*, or erudition?' Twelve mortal sittings did we endure, with gradually thinning audiences. The result has been, I fear, a death-blow to French congresses,—platitudes, verbosity, egotism, dulness, but not one addition to our knowledge. Looking through the notes of all the sittings, I cannot find one paper really worth transcription; but, with the help of the official *procès-verbal*, I may be able to pick out enough of abstracts to fill a page or two which will not be wholly novel, and will preserve in your pages some sort of record of the fourth annual congress in the first year of the revenge of our beloved France. Alas! it is not thus that we shall rise above the level of our too pressing neighbors, or teach them to keep their place."

Blockading Cholera.—In the *Gazette Médicale d'Orient*, we have an editorial article, as well as the report of a speech of M. Pardo, before the Imperial Society of Medicine at Constantinople, denouncing in powerful terms the evils brought on by an attempt to blockade an epidemic of cholera within the quarter of Kassym-Pacha, by placing guards around it, who were ordered to bar all egress. This was done by a commission of seven medical men,—one of whom, however, resigned on seeing the results. These are described as most deplorable. No increased cleanliness, no fresh supplies of water—so much needed in Constantinople—were given; terror spread through the unfortunate quarter, which contained a population of 25,000, and the sick were in many cases allowed to die unattended. The inhabitants, deprived in many cases of their means of subsistence, were allowed twopence per head daily. Some managed to corrupt the guards; others forced their way through with arms in their hands. The quarantine, of course, failed; but the neighboring quarter of Haas-Keny was included in the blockade, and with the same unsuccessful results. According to the *Gazette Médicale d'Orient*, from the 2d of October to the 12th of December, 1871, there were, by official returns, 2914 deaths from cholera, a mortality of 62 per cent. on those seized. The writer in the *Gazette Médicale* thinks this much underrated. He and M. Pardo, instead of despotic measures of quarantine which have always failed, advocate a plentiful supply of fresh water, increased cleanliness, and recommendations addressed to the people to practise temperance and proper hygienic precautions. The population of Constantinople is stated to be about a million, most of whom live in complete negligence of hygienic laws.

The Medical Profession in Boston.—From the recently issued Medical Register of Boston and its vicinity, we learn that the number of physicians, members of the Massachusetts Medical Society, residing in and about Boston, is three hundred and thirty-nine.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending Nov. 9, 1872, were 225; of which 7 were of bodies brought from the country; making the mortality in the city 218; of the whole number, 122 were of adults, and 103 of minors. Among the causes of death were:

Consumption of the Lungs	38
Other Diseases of the Respiratory Organs	37
Diseases of the Circulatory Apparatus	12
Diseases of the Brain and Nervous System	31
Diseases of the Digestive Apparatus	14
Zymotic Diseases (2 from Smallpox)	13
Typhoid Fever	5
Cholera Infantum	3
Casualties	9
Debility (including "Inanition" and "Marasmus")	13
Still-born	6
Old Age	7

The meteorological record kept at the Pennsylvania Hospital was as follows:

	Thermometer. Max.	Min.	Barometer. (2 P.M.)
Nov. 2	52.5°	45.0°	30.13 in.
" 3	49.0	45.0	30.10 in. (Rain.)
" 4	52.5	41.5	30.38 in.
" 5	55.0	39.5	30.45 in.
" 6	55.0	49.0	30.30 in. (Rain.)
" 7	53.0	50.0	29.78 in. (Clearing.)
" 8	50.5	44.0	29.95 in.
" 9	53.0	38.0	30.16 in.

SATURDAY, NOVEMBER 23, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON CERTAIN PAINFUL AFFECTIONS OF THE FEET.

BY S. WEIR MITCHELL, M.D.,

Physician to the Orthopædic Hospital and Infirmary for Nervous Diseases.

THERE is another form of pedal pain, which is fortunately most rare, and which, so far as I am aware, has been nowhere competently described. It is, however, a malady of considerable interest; to the patient because it is a grave disqualification for all active pursuits, and to the doctor on account of the obscurity of its origin and of the obstinacy with which it resists all forms of treatment. One case of this very unusual disorder has presented itself among the hundreds of instances of neural disease which have claimed our aid in the last two years. This alone would justify me in speaking of it as uncommon, and I may add that I have seen in all five cases, and that a friend has lately given me the notes of a sixth. It so chances that the first example has been thus far unmatched in severity among those that I have since seen treated. In place, therefore, of taking our hospital case as my text, I shall briefly describe the graver instance, which, perhaps from the fact of its intensity, so impressed the matter on my mind as to cause me to study curiously every case which has since fallen in my way.

The patient, a sailor, aged about forty, while in the U.S. naval service on the coast of Africa, suffered from sunstroke. This was followed after a few months by a grave attack of coast-fever, and from this seemed to date an enfeebled condition of the heart, with an apex-murmur heard in the systole. He reached the Norfolk Hospital eight months after his fever, and was there during the whole winter. Some time early in the next year he began to have dull, heavy pains, at first in the left, and soon after in the right foot; the pain was a dull ache, and seemed to be in the interior of the foot, between the sole and the instep. At first, and indeed for three months, the pain was unaccompanied by swelling, but in April this new symptom was observed, after much exercise, and then only.

The disease progressed rapidly, and when I saw the man, in June, his condition was no less strange than pitiable. He was a well-made, vigorous person, of rather ruddy complexion. His appetite and digestion were good, his bowels regular, and his urine, save some slight though constant deposit of urates, in all respects normal. He told me that he had pain in the feet whenever he attempted to walk, but that while at rest in bed he was perfectly comfortable. The case, as he spoke of it, was to me so novel that I somewhat mistrusted his statement, and therefore directed him to walk up and down the ward and about the grounds until I sent for him, which I did when at the close of an hour my visit was over. He made his appearance in the ward, walking with the step of a man whose feet are tender. On examining his extremities I found them both swollen. They scarcely pitted on pressure, but were purple with congestion; the veins were everywhere singularly enlarged, and the arteries were throbbing visibly. The whole foot was said to be aching and burning, but above the ankles there was neither swelling, pain, nor flushing. On other occasions I examined him in bed, and then caused him to stand for a time. Almost at once, without previous pallor, the feet began to fill with blood, and after a quarter of an hour or less, if he walked, the pain appeared, and with it the swelling so increased as after a time to force him to lie down. He was very sure that he had suffered pain long before either swelling or redness was observed, and I am disposed to think this statement correct. As the autumn came on and the weather grew cold, I was able to verify another of his statements, to the effect that cold relieved him and that heat increased his sufferings. In fact, he preferred to wear slippers without stockings, and while on cool days he could walk for an hour before his pain became great, in warm weather a few minutes of exertion were enough to bring about this result. A hot foot-bath had a like effect, and cold bathing was almost the sole means of speedy relief. A long series of therapeutic experiments failed to afford him any permanent ease. The local use of cold, and of alternate heat and cold, bandages, sedative washes, lead-water and laudanum, leeching and blisters, digitalis, arsenic, and tonics, all alike failed to help him, so that at last, having gained something from the cold of early winter, he left us, and I have never heard of the issue of his most singular history.

Some years passed by before I met with a second case, and of it I have only a general knowledge and no special notes. The patient, a healthy young man, but subject at times to long and severe attacks of palpitation of the heart, while working in an iron foundry, and therefore constantly on foot, began to have, towards the evening of each day, pain and ache, as he called it, in the feet. By-and-by it came earlier in the day, and at last attacked him whenever he was an hour or two on his feet. Occasionally, after great exertion, the feet flushed a little, but did not swell. In this, as in the sailor's case, summer was the time of the greatest torment, and a cool day gave more or less relief. After a time the pain became so severe that he was forced to seek a sedentary occupation, after which the pain, on the whole, became less, although ready to appear anew whenever he took too much exercise on foot. I should add that, although some years have now gone by, this tendency still continues, while in no other way does the patient show any manner of disease.

My next case came to me from Dr. James King, of Pittsburg. The patient, aged twenty-one, managed, at the time I saw him, a large printing-office. He was healthy up to 1864, when, after an extended

army-service, he had ague, which clung to him a long while. Returning home, much weakened in health, he began for the first time in his life to have, after long walks or after standing for a time, vague pains in both feet. Disregarding these, he continued to be much on his feet, and engaged in a business which taxed severely all his powers; and soon his annoyance increased so much as to cause him to seek for aid.

When I saw him in 1868, he was suffering most gravely. Usually he arose in the morning free from pain, but it came on in one or two hours, and increased in severity so long as he remained active and on foot. It thus happened that by nightfall both feet were aching and so painful as to make further exertion impossible. The seat of pain was not distinctly fixed, being rather, as he said, throughout the feet. There was never at any time swelling, but once or twice a month some great excess of movement would cause the feet to be darkly flushed and congested. At times also, as in the evening or whenever unusual or sudden exercise had been taken, the pain was of a burning character, and the feet throbbed. At such times they became tender, and were so sore that pressure or the effort to pull on a boot caused extreme pain.

The patient was free from heart-disease or other troubles, functional or organic, and, like the previous case, had not had gout or rheumatism.

As in the other cases, the summer brought more intense pain, and it was in hot weather easily induced by the slightest exertion; while winter brought not only a general relief, but also enabled him to walk much longer without producing pain. Having learned these facts very early, he saved himself suffering as much as possible by wearing the lightest of foot-coverings. Later in his case the pain was chiefly on the sides of the feet, and at all times he could obtain perfect relief or insure freedom from annoyance by rest in the recumbent position. In October, 1868, Dr. C. B. King, of Pittsburg, writes to me that he has carefully watched the patient while applying electricity, and that he has never seen the feet either red or swollen. He adds that the right foot is the worst of the two, and that the severest pain is in the centre of the sole. He could find no tender points when the patient had been for a while without exercise, as in the mornings; and when the feet were the worst the tenderness varied in position, and was usually general and not acute or in limited localities; neither was it seated in the muscular tissues of the feet, an observation which I myself confirmed on several occasions.

In June, 1871, I saw the next instance of this obstinate disorder. Mr. C., æt. thirty-seven; married. A healthy, well-built man, free from any constitutional taint, and never having had gout or rheumatism. When nineteen years of age, Mr. C. lived on a farm and worked as a field-hand to learn the business. After a few months, and in midsummer, he began to feel in the feet a sense of weariness,—a fatigued, sore feeling, as if he had walked too long. As this grew worse it came to last over night, and was then eased by walking in the morning. At last the soles became so sore that he would sometimes crawl down-stairs in the morning on his knees, and after cooling his feet with pump-water would pull on his boots. There was neither redness nor swelling, and the soles were the chief seat of pain, which was a dull, heavy ache, always much under the control of temperature, heat increasing and cold relieving it. The autumn and winter brought entire ease.

He quitted the business of farming, and became a clerk. During nine years he walked a good deal, and felt each summer some slight return of annoyance, but the winter brought absolute relief. When twenty-nine years old, a change of business brought with it heavier responsibilities and a great increase of exercise on foot.

The first warm weather in May caused a return of the foot-trouble, from which, up to this time, nine years, he has not been altogether without discomfort at any time.

The pain and suffering in his first attack were unlike those of the other cases whose histories I have related to you, but when they returned they differed little from these. The heat of summer and too much foot-covering increased the pain and the readiness with which exercise caused it, while cold had exactly a reverse influence.

After walking for a time, he felt as if there was a cushion under the toes and the ball of the foot. Then the foot burned and pricked, and these latter feelings, which were so sharp at times as to amount to stinging, became worse for a little while when resting after a walk. His mode of relief was to bare his feet and place them on a higher level than the remainder of his body. At no time was there redness or swelling, and only once or twice could I find spots of tenderness on the sides of the feet, which, I should add, were well formed.

Dr. Keen has kindly given me notes of a case which in no essential respect differs from those already described. The patient, however, was a seamstress, and hers is the only example I know of which has been noted in a woman. In addition to these cases I have met with two others of like nature but less persistent.

Before discussing this very interesting affection, it is well to say that we meet with in practice soreness of the soles due to gout, and more rarely to rheumatism, but this trouble is clinically very unlike that which we are now considering. Of it I find nowhere any full description,—in fact, in but one place any description at all. More may have been written, but it has not fallen under my notice. Prof. Gross has, at p. 977, vol. ii. of his "Surgery," half a page devoted to "Pododynia." This, he says, is so common among tailors that it ought to be called after them. Unaccustomed to walk, the erect posture brings on *pain and tenderness* which are deep-seated and are always made worse by pressure and by walking and standing. There is little swelling, and seldom discoloration. Dr. Gross thinks this is probably a form of inflammation situated in the periosteum and plantar aponeurosis, attended with determination of blood and effusion.

Few physicians, we suspect, would, on such evi-

dence, admit the proof of inflammation to be sufficient; but it seems altogether probable that the cases which Dr. Gross describes are of close kindred to those which I have narrated. It will be well to group the symptoms together, and see what main features the natural history of this affection offers.

A man previously well or not, as may chance, begins to feel excessive fatigue of his feet after long walks; then it comes after short walks, and in bad cases after standing, or perhaps even a few minutes afoot brings it on. Nearly always it arises first in summer; and, throughout, cold helps and warmth hurts it. Once begun, it soon becomes pain, and the grade of pain may be high or low,—mere aching or absolute torment; but, severe or not, rest cures it; and rest with coolness and elevation is more grateful than anything else.

This alone is an indication that the symptoms are related to an increase in the amount of blood in the part. More direct evidence is to be had from the first case quoted, and in less degree from the others. The feet swell or they do not, they flush or not, as the case is severe or slight; but if they redden and swell, it is because of exercise, and rest speedily banishes both symptoms. The sense of ache and pain is followed by vaso-motor palsy and by the nutritive phenomenon of œdema, but this is only in extreme cases, and usually the pain exists alone. Mr. Paget has reported lately a strange case in which exercise caused basal spasm, and the subsequent rest brought about extreme basal relaxation, pallor during movement, flush after it.

In my cases there was no precedent paleness, and the reddening was seen only in the worst instances, or in extreme states of the mild ones. My own patients resembled Mr. Paget's only in the one sad particularity of being incurable. For two of them it were almost easier to say what had not been done, than what had been done.

In the sailor's case, after many expedients had failed, I put him in bed for a month, but had the annoyance to see the malady return the first time he stood erect. Equally vain was it in all cases to try to overcome the evil by steady exercise. I have tried blisters, which Dr. Gross found useful, douches, bandages, faradic and galvanic electricity, and, of course, drugs, until I was in despair. The treatment reduced itself to a minimum of exercise, to keeping the feet cool, and to securing in summer the coldest climate attainable.

Fortunately, this distressing disorder seems to be uncommon; but there may be other physicians who have met with cases of it. I should be glad to learn whether or not my brethren have found it as obstinate a foe as I have done.

CARBOLIC ACID AND SNAKES.—*The Medical Times and Gazette* of August 31, in a notice of Dr. Fayrer's work on "Indian Venomous Snakes," quotes the statement that these reptiles have the greatest repugnance to carbolic acid, which is a powerful and fatal poison to them. It is therefore of the greatest use in keeping them out of houses.

Practical use may be made of this fact, if it extends to other animals of the snake kind, as it probably does.

ORIGINAL COMMUNICATIONS.

ON THE EFFECTS OF THE BROMIDES IN EPILEPSY, WITH SPECIAL REFERENCE TO THE BROMIDE OF POTASSIUM.

BY M. GONZALES ECHEVERRIA, M.D.,

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THE essential relations of epilepsy to heredity, to the habits of life, or to organic derangement in its broader sense, are as numerous as they are complex, rendering in their varied influence the treatment and management of epileptics exceedingly difficult. My experience with a large number of these cases, for a period of over twelve years, has strongly impressed me with the fact that, in the desire which is usually manifested to try every new anti-epileptic remedy, or to discover the real one, there is not sufficient thought given to the bearing of pathogenic circumstances on which no kind of specifics may exert any appreciable influence. This is obviously proved by the frequency with which the simplest cases of epilepsy turn out to be the most hopeless and unyielding to extolled anti-epileptic mixtures, so long as these latter are used indiscriminately, and the treatment generally not based on sound and well-established principles, both of therapeutics and pathology. I have arrived at the conclusion, upon the researches of others as well as my own, that the vaso-motor or sympathetic system is primarily affected, and that cerebral anæmia is the initial phenomenon in epilepsy. Several agents, therefore, should be capable of counteracting the original causes of the morbid condition here in question, and it would be interesting to ascertain their comparative efficacy. The anti-epileptic virtues of conium have been the subject of researches published in this journal by myself and Dr. A. E. Macdonald, and I propose now to state the results of more extensive experiments with the most popular anti-epileptic, namely, bromide of potassium, and its therapeutical value in epilepsy as compared with some of its kindred salts.

I have followed closely the effects of the bromide of potassium, in periods varying from seventeen months to eight years, with 486 epileptics: 227 males and 259 females. I satisfied myself, on repeated and modified trials, that the salt proved powerless in 104 cases: 58 males and 46 females. I am not prepared to speculate upon the real causes of so inefficient an action of the bromide, nor could I detect any etiological or symptomatic resemblance between these epileptics. Digitalis, hyoscyamus, belladonna, iodide of potassium, and iodide of mercury, diminished the frequency and severity of their fits, and consequently their mental deterioration, without, however, radically affecting the disease. Among the males, two exhibited a hereditary taint of nervous disease; six were epileptic since their infancy; two had syphilitic epilepsy and died thereof; three were in a far-advanced stage of dementia when placed under the bromide, and six of the remain-

ing cases had epileptic insanity, superinduced in two instances upon a traumatic injury to the head. Hereditary tendency to epilepsy existed in five females; five others had had fits since their infancy; and lastly, of the remaining females, twenty-six were insane and two demented.

Not one of the epileptics has taken less than twenty grains of bromide of potassium three times a day, or for shorter periods than seventeen weeks. I prescribed the salt, at first with tincture of columbo or of sumbul, but for the last four years chiefly with the succus conii, or the fluid extract of conium. I have constantly associated the arseniate of potash with the bromide, since I discovered, seven years ago, that by their combination we avoid the eruption usually induced by the bromide of potassium, or mitigate it, and because, undoubtedly, arsenic exerts besides a tonic beneficial effect upon the patient. I have not recognized any marked advantage from the admixture of the bromide of ammonium, or the carbonate of soda, which rather increases the disagreeable taste of the bromide solution.

The formula of the anti-epileptic mixture I have ordinarily prescribed is:

℞ Potassii bromidi, ℥iv—℥vj;
Liquor. potassæ arsenitis, f℥j;
Succi conii, f℥ij—f℥iv;
Aquæ dest., ad f℥vj.

Misce. Sig.—One tablespoonful three times a day, or oftener as required by the case.

Ordinarily, as stated, the smallest dose of bromide of potassium prescribed to my patients has been twenty grains three times a day, given to them shortly before meals, and the last dose at bedtime. This quantity has never been augmented unless the condition of the patient indicated an approaching paroxysm, or the frequency or violence of the attacks demanded it. The largest dose of bromide of potassium taken by hospital patients has been seventy-five grains three times a day, continued in two females during a period of from fifty to seventy days without the supervention of bromism, and with unmistakable arrest of the fits. Another girl, at the hospital for epileptics, took for twenty-one days three drachms and a half of bromide of potassium daily, with great improvement, and no signs of bromism. These, however, are exceptional instances, since I have seldom seen forty grains of bromide repeated thrice daily for four or five days without causing bromism.

The average dose required in obstinate cases of epilepsy has been thirty grains of bromide of potassium; and no difference has been remarked in its effects upon the diurnal and the nocturnal attacks.

The epileptic fits have disappeared under the uninterrupted administration of the bromide of potassium in the following patients, for the length of time respectively specified, to wit:

1 male,	2	females;	total	3,	for	8	years.
3 males,	2	"	"	5,	"	6	"
6 "	8	"	"	14,	"	5	"
5 "	12	"	"	17,	"	3	"
31 "	37	"	"	68,	"	2	"
3 "	2	"	"	5;	had one fit in 3 years.		

In the foregoing cases the attacks occurred from one to twenty-two times a week, and in one female, who has continued for five years free from fits, they recurred as many as seventy-six times in one week. Six males and eight females had *petit mal* and *grand mal;* eighteen males and twenty-six females had both diurnal and nocturnal attacks. In one of the males, who has been for three years without fits, I trephined the skull and removed an exostosis of the internal table of the occipital; the fits recurred twice within a week after the operation, and the patient was subsequently kept under bromide of potassium (℥ij to ℥j thrice daily) and ergotine, no epileptic attacks having returned thereafter.

The respective ages of the above patients were—males: 22 adults, 16 adolescents, 11 children; females: 28 adults, 21 adolescents, 15 children.

The cause of the disease was:

Intemperance,	18 males,	12 females.
Dentition,	1 male,	2 "
Amenorrhœa,		6 "
Fright,	2 males,	1 female.
Scarlatina,	1 male,	1 "
Mental overwork,	1 "	
Injury to the head,	1 "	

The origin of the disease could not be positively ascertained in the other cases. One of the females had an older sister, who was an inmate of a lunatic asylum, was discharged cured therefrom, and continued in a sound condition of mind until her death, eleven years after. She had no knowledge of hereditary insanity in her family, but her maternal grandmother was affected with chorea. The father of one of the male children had been intemperate before the child's birth, and subsequently died from paralysis and delirium tremens. Intemperance was again acknowledged in three more cases: twice in the father; one male and one female adolescent; and one in the mother of a female, also adolescent.

The phenomena attending the exhibition of the bromide of potassium to epileptics are of two kinds: those usually observed in almost every case, and those of less constant, or exceptional, occurrence. The first includes slowness of the pulse and increased temperature of the skin; fetidity of the breath; hypersecretion from the salivary glands and kidneys; eruption on the skin; anæsthesia of the skin, pharynx, and mucous membranes; congestion of the conjunctiva and retina. Among the less frequent phenomena I have noticed diarrhœa, nausea, vomiting, diplopia, ataxia, and mania, or aphasia.

One of the immediate effects of the bromide of potassium on epilepsy is to decrease the frequency of the pulse peculiar to the disease, rendering it, in addition, more firm. The temperature of the skin increases also by one or even two degrees, and the respiratory movements, which so strongly contrast in their slowness with the rapidity of the pulse, become more frequent and in a more natural relation to the latter. I may further assert, incidentally, that, throughout the progress of epilepsy, the evening temperature of the skin is always higher than the morning; a fact which exhibits itself always

more conspicuously before the approach of a fit, and may enable us to predict it.

I have repeatedly observed this rise in temperature, which has been likewise noticed by Dr. Julius Mickle, of the Derby County Asylum, in relation to the epileptiform and congestive seizures attending the general paralysis of the insane (*Journal of Mental Science*, April, 1872).

The fetidity of the breath is a phenomenon of rather transient duration, generally disappearing on a continuance of the bromide of potassium, and superinduced by this latter in a more remarkable degree than by any of its kindred salts. This fetidity occurs earlier and more conspicuously in individuals who do not attend to regular cleanliness of their teeth; hence its most striking occurrence among hospital patients. The phenomenon does not acknowledge as its sole cause the elimination of the salt through the salivary glands, for I have on several occasions ascertained by chemical test the presence of bromine in the saliva, without any foulness of the breath. In no instance, however, have I met with the latter without more or less swelling of the pharynx and tongue, which leads me to assume that the main source of foulness proceeds from decomposition of the detached epithelial cells. The secretion of a thick mucus, and a parching of the patient's throat in the morning, are hardly ever absent. A. Voisin, upon the observation of seven cases, states that the elimination of the bromide of potassium takes place through the salivary glands during the winter only; but when the salt has been given in thirty or forty grain doses I have never failed to detect the presence of bromine in the saliva irrespective of any seasonal influence. I may further remark that the hypersecretion of the salivary glands has been preceded by a dryness of the mouth and throat, and at times also by trouble in deglutition.

The renal secretion is generally increased, and I am satisfied, upon careful examinations carried out at the Hospital for Epileptics, that the quantity of urea in the urine is notably lessened by the bromide of potassium, a fact which has been already noticed by other experimenters. The elimination of the bromide through the kidneys takes place immediately upon its administration, and persists for several days after its discontinuance.

Dr. A. E. Macdonald, late Assistant Physician to the Hospital for Epileptics, has detected evidences of bromine in the urine of epileptics secreted ten or twelve days after they had ceased using the bromide of potassium, a fact equally established by the researches of Namias. I have also been able to observe the accumulation of bromine in other organs besides the kidneys, for its unequivocal existence was demonstrated in the cerebral tissue of an epileptic who died at the hospital seven days after he had stopped taking bromide of potassium. The elimination of the bromide appeared more active in the urine secreted after meals or any prolonged exercise, and it has been more abundant in winter than in summer. Diuresis, again, has generally seemed more pronounced with adult males and children than with female adults.

Concerning the anaphrodisiac properties of the bromide of potassium, I have seen many cases of satyriasis in epilepsy, and there are at present several at this asylum on whom the salt has been unsuccessfully tried. The failure has not been exclusively in epileptics, but in the insane generally. I have carried the bromide of potassium to its highest limits—two and a half drachms in six hours—in a female nymphomaniac and paraplegic, without further effects than those of bromism.

One of the epileptics at this asylum, immediately upon the convulsive paroxysm, falls into a state of epileptic insanity and masturbates himself furiously, without the least attention to those surrounding him. He has taken, during such paroxysms of insanity, as many as two drachms of bromide of potassium in three hours, after being kept on the use of ninety grains of bromide daily. His most violent attack of satyriasis broke out while he was in a condition of bromism which I had induced, expecting thereby to avert the fits. Furthermore, I have had to discontinue the bromide of potassium at night, as it induced lascivious dreams with seminal emissions in an epileptic who had never had them before. Similar phenomena have been observed by Voisin, who met with partial satyriasis, nocturnal erections, lascivious dreams, and great seminal loss, superinduced by the bromide of potassium. Rabuteau states (*Gazette Médicale*, 1869, p. 395) that of two strong dogs to whom he had given ten grammes (one hundred and fifty grains) of bromide of potassium, one did not pay any attention to a slut in heat, whereas the other would not let her rest; whereupon Rabuteau concludes that the anaphrodisiac effects of the bromide are as manifest with the dog as with the man. Rabuteau, however, should have experimented, before arriving at this conclusion, upon other substances not reputed anaphrodisiac, but capable of keeping the action of the nervous system in abeyance, to ascertain if they also would not have operated on the dog as did the ten grammes of bromide of potassium. I have seen fifteen grains of hydrate of chloral, injected in solution on the right thigh of a lively slut in heat, render her completely indifferent to the dog for more than twelve hours that she remained under the influence of chloral. Thirty drops of Magendie's solution, injected in the same manner, induced identical results. Shall we conclude therefrom that morphia and chloral possess any real anaphrodisiac properties? I have moreover noticed nocturnal erotism with voluptuous dreams, as just cited after the use of the bromide of potassium, produced in another epileptic by belladonna or atropine; whereas I may no less positively assert that the prolonged administration of narcotics or hypnotics has frequently determined a more or less complete loss of sexual desire among several of my nervous or insane patients. The same effects attend the abuse of alcoholics. I do not believe that the inward morbid feeling prompting self-pollution in epilepsy, or in any other form of insanity, originates solely from the genital organs any more than does our normal sensual satisfaction. I have seen maniacs in restraint gratifying their erotic desires in the strangest manner; while it is

beyond question that voluptuous sensations are not exclusively located in any particular organ of the body, but awakened and carried to their utmost degree by thoughts, without the necessary intervention of the genitals. Moreau de Tours cites the case of a girl, a nymphomaniac, in whom no means could repress the satisfaction of her venery, since her gratification could be complete even when she did not bodily lend herself to it. For all these reasons, therefore, I should consider the assumption of anaphrodisiac properties in the bromide of potassium as unwarranted, as well as those of anaphrodisiacs generally. I must, nevertheless, remark that the anæsthesia of the mucous membranes which attends the exhibition of the bromide of potassium may, and does, prove of great avail in urinary diseases, chiefly to soothe urethral irritation and the consequent erection which under such circumstances is likely to occur.

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

MEDICAL CLINIC OF DR. H. C. WOOD.

Reported by Dr. W. H. PARISH, Resident Physician.

PNEUMONIA—DEATH FROM GANGRENE OF THE LUNG.

E. C., æt. 37, a native of Philadelphia, was admitted to the hospital on October 7, 1872. On admission, he stated that for five or six weeks he had been suffering with a severe cough, but that he had been confined to the bed for only the last five or six days. His habits had been intemperate in every respect, and he had frequently subjected himself to exposure to severe weather while intoxicated.

The skin was hot and dry; the tongue was somewhat dry and brownish. The bowels were loose, there being three or four passages daily. The respirations were frequent, and the pulse rapid and weak. There was a troublesome cough, attended with an abundant expectoration of a tenacious, rusty, purulent sputum of not especially offensive odor. Auscultation and percussion revealed the involvement of the lower lobes of both lungs, as shown by dulness, bronchial breathing, and the other signs of consolidation.

He was immediately placed on the use of tr. digitalis, gtt. x, every three hours; the effect on the pulse to be watched. He was also given twelve ounces of whiskey in milk-punch, during the twenty-four hours; one-half ounce hourly during the day, one ounce every two hours during the night. An astringent, to control the diarrhœa, was also directed. The chest was enveloped in a hot flaxseed poultice, to be renewed every three hours. It was directed that the diet should consist almost entirely of milk; one quart to be given daily, in addition to that taken in the punch. Dr. Wood, in remarks on the case before the class, stated that beef tea and beef essence possessed very little nutritive effect, and that they should not be relied on as articles of diet for the sick, but may be of some value for their stimulant action. He said, also, that the concentrated extracts of beef now in such general use should not be employed, except to give taste to insipid articles of food, and that in large quantities they are not only unproductive of good, but positively injurious, having in them about twenty per cent. of the potassa salts. These salts are, as had been frequently tested in the lower animals, rapid and decided depressants of the circulatory system.

Dr. Wood also reasoned, that in consolidation of a portion of the lung, as this consolidation shuts off, to a great extent, the entrance of blood, and as the same quantity of blood passes through the heart, the heart's action must be increased in strength to accomplish the more difficult task of driving an undiminished quantity of blood through vessels which in the aggregate would represent a tube of diminished calibre. In digitalis, he claimed, we had a remedy that would give this needed strength to the heart's action,—an effect which has been observed in repeated and undoubted instances.

The patient presented no symptoms of improvement. The diarrhœa was held in check with astringents, but the cough remained very troublesome, and the sputa became much increased in quantity.

On the evening of the 11th there were evidences of delirium of a low type. The temperature, which had been vibrating between 102° and 105° F., fell to 101°, and there was no amelioration of the other symptoms. On the 12th the breath and sputa became quite offensive, with temperature lower than on the previous day, and an increase of the delirium.

October 13.—Pulse 140. Respirations 64. Evening temperature 100; odor of breath and sputa excessively offensive. Delirium very decided.

October 14, 11 A.M.—Temperature 98°. Pulse 120 Respiration 42. 1 P.M., he died.

Dr. Wood presented the specimens to the class on the following clinic day. Portions of the lower lobes of both lungs were in a state of gangrene. An abscess existed in the middle lobe of the right lung. The other portions of both lungs presented solidification, excepting the upper lobes, which contained air. The gangrenous portions were much disintegrated, softened, of a grayish black color, and of a most offensive odor. The other viscera appeared quite normal.

The lecturer remarked that there was an analogy existing between the gangrenous condition following pneumonic consolidation, and that resulting from the application of a ligature. He spoke of the parenchyma of the lungs as being composed of the bronchioles and air-vesicles; the conjunctive tissue binding together these vesicles; the blood-vessels ramifying in this tissue, and furnishing nutrition to the lungs; the nerves and lymphatics and the epithelial membrane lining the air-vesicles. In ordinary acute pneumonia there is an exudation into the air-chambers of a fibrinous material, together with a certain amount of cellular elements. In the course of the disease the exuded *fibrin*, being changed into *mucin*, easily softens down, and the cells take on a fatty degeneration. After these elements are thus changed, they are coughed up or absorbed, and the lung is relieved. But if this exudation, instead of being chiefly fibrinous, consists largely of cells, these cannot change into mucin and in that way soften, but drying and shrivelling they will remain as irritants which the lungs cannot get easily rid of. As the result of this irritation, an inflammation is established in the connective tissue surrounding the air-vesicles, and interstitial pneumonia is thus added to the vesicular form. This interstitial exudation, if thrown out rapidly, into a lung already crowded with inter-vesicular exudation, suddenly compresses the blood-vessels, entirely occluding their calibres, as with a ligature, thus bringing about a form of moist gangrene; which is generally called suppuration, but which, if the powers of the system be low, is accompanied by actual putrefactive changes, and is then known as gangrene of the lungs.

When, however, the exudation is thrown out slowly, the blood is slowly squeezed out of the vessels; the cells clogging up the air-chambers remain as shrivelled masses, and we have the so-called infiltrated tubercles. The infiltrated tubercle is then simply the result of a process consisting of a vesicular exudation, chiefly cellu-

lar; degeneration of these cells, interstitial exudation with gradual occlusion of blood-vessels, and dry gangrene; an explanation so very simple that the wonder is it was not long ago adopted.

Moist gangrene is due to the sudden occlusion of the blood-vessels; dry gangrene, to the gradual cutting off of the blood-supply. Moist gangrene, unless very limited, is of necessity fatal; dry gangrene, if extensive, is also fatal, but if limited may permit the patient's recovery to general good health. If a cavity exists with a limited amount of "infiltrated tubercle," recovery is possible; but if the purulent degeneration is extensive, death is inevitable.

SENILE GANGRENE OF THE NOSE—DEATH.

H. S., æt. 70 years, native of Ireland, and of intemperate habits, was admitted to the Philadelphia Hospital on August 14, 1872, without any positive disease, but with a system enfeebled by old age and the wearing effects of a life of hardships.

On October 1, there was evident congestion of the lungs, with spitting of blood, and with dyspnœa.

On October 12, a small dark point, not larger than a pin's head, appeared on the tip of the nose, with some lividity of the tissue for a few lines around. In this spot there was a sensation of stinging, but no positive pain, it not being mentioned except in answer to questions. This dark spot gradually extended its area, but without any increase in the limited amount of inconvenience. The patient was, however, confined to bed by his feeble condition, and the pneumonic breaking down of the right lung, as evinced by the sputa and the auscultatory signs.

The man being brought before the class, Dr. Wood stated that in this patient we had a man aged not only from years but also from the character of the life he had led. The muscularly laborious men—and especially is such the case if with hard physical toil has been combined intemperance—on arriving at seventy years are older than others are at eighty. In such we find well marked those degenerative changes in the human economy which present themselves as years pass by and old age advances.

You see the black spot on this man's nose; a few days ago it was but a little speck, yet gradually extending it now embraces all of its extremity. It is dry, shrunken, and glazed. This is senile gangrene, due, generally, to atheroma of the walls of the arteries, and occurring most commonly in one of the extremities, most frequently the toes, but also in the fingers, ears, nose, and other points remote from the centre of circulation. The atheromatous or calcareous condition of the vessels, by slowly cutting off the blood-supply, produces, as in infiltrated tubercle, a dead, shrivelled state of the tissues,—the dry or senile gangrene. In cases like this one, there is always a sluggish state of the circulation. In this man we find the ears, toes, and fingers cold and livid, the nails blue, and all the evidences of enfeebled circulatory powers. The gangrene, in this instance, cannot be due to an embolus, *i.e.* it cannot have been caused by a vegetation escaping from a valve of the heart and by means of the circulation entering the facial artery, so as to have occluded one of its ramifications. This cannot be the case, because an embolus would rarely enter the facial artery, but will rather continue in the larger vessel which follows a more direct course, and not enter a smaller one going off at an angle. Besides, if the gangrene were due to an embolus, it would be unilateral, whereas it is here bilateral.

You should be well prepared to recognize the first appearance of this condition. The dark point, like the cloud no larger than a man's hand, trivial as it appears, should forewarn you of what is approaching. It is almost invariably the forerunner of approaching dissolution. Occasionally, as in the lower extremity, a line of demarcation is formed, and the surgeon is justified in removing the offending part, with a possibility of the patient's recovery. Yet such cases are exceptional ones.

For our patient nothing can be done but to render him comfortable. A supporting treatment is indicated, and opium may be given because of its stimulant effect upon the capillary circulation.

[This man died on October 18, 1872, from exhaustion.]

NASAL DIPHTHERIA—DEATH. MALIGNANT CORYZA.

G. A., æt. 58 years, and a native of Germany, was admitted to the hospital on October 12, 1872. It was impossible to obtain any satisfactory account of his past life or of the incipiency of his present trouble. His condition, however, was a typhoid one. His tongue was very dry, brown, and fissured. The pulse was frequent and weak, but the heart's sounds were normal. Physical exploration showed the lungs to be clear, excepting some bronchial râles. The respirations were, however, performed with difficulty, and attended with a peculiar sound, as if the posterior nares were partially occluded. The mucous membrane of the anterior nares was very red and swollen, and there was a thin ichorous discharge. Inspection showed the pharynx, soft and hard palate, and tonsils, to be changed in appearance. They were of darker color than normal, and in spots were covered with an ash-colored exudation. The bowels were constipated. There were great restlessness and jactitation. The evening temperature was 99° F. The administration of half an ounce of castor oil produced four or five fluid evacuations, rendering it necessary to administer astringents. Quinine and iron were directed to be taken every three hours. Milk punch and liquid diet were to be given at regular periods.

On the night of the 13th, there were manifestations of delirium, and a return of the diarrhœa. No tympanitis; no eruption on skin. Temperature at midnight 98° F.

October 14.—Symptoms more unfavorable. Entire mucous membrane of mouth dry and brownish, excepting where covered with the exudation. This had spread over the hard palate; had appeared on the lips and buccal surface, and had become quite dark in color. There was occasionally an escape of a bloody, serous fluid from the anterior nares,—adynamia more marked. The symptoms became more and more decided, until death, which occurred on October 15, 1872.

Dr. Wood presented to the class the specimens obtained at the autopsy. The thoracic and abdominal viscera were apparently normal. A vertical section had been made of the head, passing through the posterior portion of the pharynx, giving a good view of the posterior nares, larynx, fauces, etc. There was a soft, semi-coagulated, ash-colored exudation on the walls of the pharynx, extending through the fauces into the mouth; also into the posterior nares. The mucous membrane of the turbinated bones seemed swollen. There was no exudation in the larynx or œsophagus. Dr. Wood stated that the appearances now confirmed the diagnosis made during life, viz., that of nasal diphtheria; a disease which is generally fatal, in spite of the most prompt and judicious treatment. The ichorous discharge through the nose is an early and diagnostic symptom of the nasal form of diphtheria, and is almost as sure a precursor of death as the dark point on the old man's nose. The patient will complain of the nares being occluded; the nostrils collapse, and there is difficulty in respiration: the local trouble is not, however, the agent of death; the patient does not die of suffocation. The disease is emphatically a constitutional one, and death is due to the general adynamia. All treatment in nasal diphtheria

seems unavailing, but the indications are for supporting and stimulant agents, with such local remedies as copper, tannic acid, etc., in weak solution.

There is a disease of childhood somewhat resembling nasal diphtheria, rarely if ever spoken of in the books. It is a malignant coryza. In this affection there is a very free discharge from the nose of a thick, tenacious mucus,—so free indeed that perhaps a quarter of a pint will be secreted by an infant in the twenty-four hours. This mucus is very different from the ichor of nasal diphtheria, and is unaccompanied by anything like a membranous exudation. With the local trouble there is severe fever, and often from the first onset very marked prostration, resembling that seen in diphtheria. In young children this affection is often very serious, not merely on account of the constitutional but of the local trouble. I have seen the mucus so thick that it would scarcely drop out of the cup when the latter was inverted. The nostrils are absolutely occluded; and the infant, unable to breathe in the ordinary way, rises up in terror, strangling and gasping for breath, and at best is unable to nurse or sleep, from the constant necessity of voluntary breathing. The danger of exhaustion in such a case is twofold: first, from the blood-poisoning; secondly, from the constant effort and the want of nourishment and sleep.

It is, therefore, often absolutely necessary not only that the general strength be supported by the most concentrated diet, by stimulants, by the tincture of iron, etc., but that the nostrils be cleared out. This must be done by injections; and I have found that a solution of the sulphite of lime (grs. xv to ℥j) rapidly dissolves the mucus, and improves the condition of the system, I have used such injections, in some cases every hour, with the apparent effect of saving life.

The child dreads them, and resists them with all his might. But the head should be firmly held, and about an ounce of the solution thrown rapidly up one nostril; this must be repeated on the other side, if the solution does not find its way into the other nostril. In my experience marked benefit follows the use of these injections for a few hours, and though it is often very distressing to give them, they appear at times to actually save life.

UNIVERSITY OF PENNSYLVANIA.

CLINIC OF PROFESSOR AGNEW.

Reported by Dr. Elliott Richardson.

RHINOPLASTIC OPERATION.

THE patient, while serving in the United States Army during the recent war, lost a large part of the fleshy structure of the nose by a thrust of a bayonet.

The nasal bones escaped injury, but the cartilages, the septum narium, and the hard palate were at the time of operation to a large extent deficient, owing to sloughing and necrosis during the treatment of the wound.

It was proposed to attempt the formation of a new nose, by taking flaps from the adjacent surfaces of the cheeks and joining them together in the median line below the nasal bones. The patient was thoroughly etherized, and the operation proceeded with in the following manner. The remaining portions of the lateral cartilages, together with the soft structures attached, were separated from the nasal bones by a transverse incision, and divided into two parts by a vertical cut in the median line. They were then readjusted in a position to correspond with the lower border of the normal nose, and again joined by silver sutures.

The tissues beneath were loosened from their attachments to the bone by an incision made through the mucous membrane of the mouth between the lip and alveolar process.

Two incisions were then carried from the extremities of the transverse cut in a direction obliquely outward and upward on the cheeks for a distance of about three-quarters of an inch, and the tissues covering the nasal bones detached from these by subcutaneous dissection, extending upwards from the original transverse cut. During the operation some old cicatricial tissue was removed, its presence tending to induce contractions inimical to the success of the operation. It will thus be perceived that two wings were made by the oblique incisions, which could be brought together and placed in the space left between the nasal bones and the flaps composed of the lower structures of the nose made by the first steps of the operation. This was done, and the flaps united with each other and the contiguous cut surfaces by silver sutures. The wounds in the cheek were also approximated in the same way, and supported by strips of adhesive plaster. The operation was of necessity attended with a good deal of hemorrhage, which rendered the application of a few ligatures necessary. Prof. Agnew said that in plastic operations, in order to secure the vitality of the flap, it was necessary to avoid as far as possible the division of important vessels of supply, and to cut down into the fat and connective tissue. Care should be taken, also, to include an apparent redundancy of tissue in the flaps, to compensate for the subsequent shrinkage.

Nov. 8 (four days after the operation).—Stitches all removed yesterday. Double nasal tubes were introduced the day after operation, and since retained. Simple wet compresses were kept applied until yesterday, when dry dressings were substituted. The flaps appear to be uniting to some extent by first intention, but partially by granulations.

Subsequently a small line of slough formed along the edge of one of the lower flaps, and prevented union, rendering another operation at some future time necessary to effect the desired object.

EPITHELIOMA OF HAND.

The patient, a man aged 64 years, had upon the dorsal surface of one hand an obstinate ulcer about an inch in diameter. The edges of this ulcer were elevated and indurated, the granulations unhealthy in character, and the discharge an offensive purulent matter. A few dried clots of blood around the edges gave evidence of slight hemorrhage at times, and the general appearance of the diseased surface, when taken with its history, clearly indicated its malignant character.

The disease first made its appearance about one year ago, as a little wart covered by a thin crust, no injury to the part being known as a cause. This crust being rubbed off would leave a small red point, which would again scab over. After a time a discharge of serum began, which was soon followed by ulceration and the formation of pus. On the side of the nose a similar growth was observed in its early stage, appearing as a small, scaly wart. Prof. Agnew said that the edges of these ulcers were generally, as seen in this case, hard, elevated, and somewhat everted, and that when subjected to irritating influences they were surrounded by a reddened surface, but often the skin was perfectly healthy to within a short distance of the border of the ulcer. This disease spreads by infiltration, and is to a great extent a local disorder, which can generally be effectually cured by the removal of the diseased tissues. Removal may be accomplished by caustic applications, but in most cases excision is preferable.

The patient being etherized, a circular incision was made around the ulcer about half an inch from its border, and the diseased surface and subjacent structures

down to the deep fascia removed. The integuments were dissected up for some distance around, in order to render a greater degree of approximation of the edges of the wound possible.

The wound was then nearly closed with strips of adhesive plaster, a wet compress applied, and the arm bound upon a splint, thickly padded at the end, so as to retain the hand in a position strongly flexed backwards. Ten days after the operation the wound presented a healthy granulating surface, and recovery seemed assured.

NEUROMA OF ULNAR AND OTHER NERVES.

This patient was a woman, aged 44 years, who applied for relief on account of a neuromatous tumor of the ulnar nerve, near the wrist. Seven years ago she came to Philadelphia, and was operated upon for the removal of a similar growth, situated near the elbow-joint. She has had three operations performed since; one at the right wrist and subsequently two at the left wrist, all for the removal of tumors of the same nature.

In addition to the one at the wrist, the patient now has one situated in the neck and one at the right elbow. She suffers a good deal of pain and some loss of power in the right arm. She was etherized, and the tumor removed. It was of small size, and fibrous in its nature, and its removal was accomplished through an incision little more than an inch in length. Under the local application of laudanum and water, union soon occurred.

FATTY TUMOR.

Professor Agnew removed a large fatty tumor from a woman 35 years of age. The growth was situated on the right side just above the crest of the ilium. It was first observed twelve years ago, and had grown slowly and without pain to this date. The tumor was removed by making a vertical incision through the integuments over its surface and dissecting it from the slight bands of adhesion to the surrounding structures. It was found to have projecting from its lower surface a process, which dipped down and curled under it like the neck of a squash. Two ligatures were applied to small arteries, and the wound closed by silver wire sutures and adhesive plaster. Over these a compress of dry lint was applied. Professor Agnew called attention to the important diagnostic points in this case, distinguishing the tumor from malignant growths.

The length of time was important, for cancerous tumors are usually very rapid in their growth, life often being destroyed by them in two or three years, although in very rare cases they have been known to run a course of eight or ten years. The absence of pain is another important characteristic of fatty tumors; cancer being generally attended by sharp lancinating or shooting pain. In cancer also, when developed to any extent, the general health becomes seriously affected, giving rise to the characteristic cancerous cachexia; while in fatty growths the system is entirely free from any contamination. The doughy, lobulated feel, and the sensation almost of fluctuation, as well as the mobility of the tumor and of the skin over its surface, present in this case, all pointed unmistakably to the nature of the growth. These tumors are composed of fat and connective tissue, not differing essentially from these structures found in other parts of the body, and are but feebly supplied with blood-vessels. They may be disseminated and without any distinct boundary, but are generally enclosed in a sac composed of two layers of connective tissue, thickened and indurated by the gradual pressure of the tumor exerted by its growth. The inner layer is much more adherent to the tumor, and the outer layer to the surrounding structure, than the two layers are to each other: hence the tumor, with its enveloping membrane, moves freely and can generally be liberated from the other by the finger or other blunt object passed between them, except at the point of vascular communication, where the union is firmer. These tumors are most commonly met with in the back and neck, though most other parts of the body are sometimes their seat, and cases are not unfrequently met with in which large numbers of them are found scattered over the neck, trunk, and extremities. They are usually superficial, but sometimes occupy deeper situations.

Their removal is generally unattended with danger, except in cases which sometimes occur where they are found to dip down among important vessels and nerves.

They are inconvenient from their size and weight, and sometimes dangerous from pressure upon vital parts, but with these exceptions they are unproductive of alarming symptoms.

A Case of Double Vagina and Uterus. By D. M. Edgerly, M.D. (*Boston Med. and Surg. Journal*, October 26).—The patient in whom this anomaly occurred was a poor Irishwoman, 35 years of age, pregnant with her first child. Labor commenced Monday morning about five o'clock. Hoping to get through without calling a physician, she did not send for me till Wednesday noon,—nearly sixty hours after labor supervened.

When I arrived, I found the patient very much exhausted; the pains were irregular, weak, and inefficient. Upon making a digital examination, I found the head low down, and the pelvis capacious; the finger could easily be carried around the portion of the child's head occupying the right half of the maternal pelvis. But when I attempted to carry my finger over the part occupying the left half, it came in contact with what seemed to be a membrane drawn tightly over the presenting portion of the head in the median line, extending antero-posteriorly. My first impression was that a lip of the os uteri was caught on the child's head and was obstructing its progress. But all attempts to get at that side of the head, either by carrying my finger under the membrane or passing it outside, failed. I found a membrane, continuous with that confining the child's head, extending to the outlet of the vagina. After making this discovery, I withdrew my finger, and found I could easily introduce it on the other side of the membrane, and feel the outline of the as yet inaccessible part of the head, but with a thick membrane intervening between it and my finger. Crowding the finger deeply down beside the head, it came in contact with what seemed to be a small cervix and os uteri. The condition of things was now evident. Withdrawing my finger and again introducing it on the right side, I partly succeeded, by using considerable force, in slipping the septum off the fœtal head. I then gave ergot in large doses, which failed to invigorate materially the uterine contractions. After waiting a little I applied the forceps, and, with some difficulty, delivered the woman of a still-born child. Appearances indicated that it had been some time dead.

The woman made a rapid and complete recovery.

When the lochial discharge had ceased, I made another examination, entirely confirming my opinion of the state of affairs at the time of confinement. On the right side I found a vagina of ordinary size, and a uterus rather larger than normal, involution not being yet completed. On the left side was a small vagina, not large enough to admit a medium-sized glass speculum,—the smallest I had with me,—also the cervix of a rudimentary uterus; the body of the second uterus could be felt resting on the cervix of the one which had been impregnated.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

QUACKERY IN INDIANA.

WE have received from an unknown source one of the most stupendous advertisements of a quack concern that we ever remember to have seen. It is issued by "The National Surgical Institute," which would seem to be located in Indianapolis. It claims to be a chartered institution, with a capital stock of $500,000, and to have connected with it "none but surgeons of ability, honor, and long experience in this specialty:" the names of these ornaments to the profession are given, but are, unfortunately, unknown to fame. Dr. H. R. Allen and W. P. Johnson have a copyright, it appears, in the circular.

A vast array of woodcuts of deformities and diseases, many of them old and familiar acquaintances, "as received," and a number of others, from fashion-plates we think, "as dismissed," are put forth to show the wonderful successes which these honorable gentlemen have achieved. Governors, judges, auditors-general, and a fair sprinkling of the clergy, are the endorsers of this establishment, to which, says the circular, "thousands of our best physicians send their surgical cases for treatment," and "find it to their interest, pecuniarily."

One strong point of the institution seems to be piles and fistula, and there is a short paragraph headed "private diseases—a great revolution," which we cannot but think is meant to indicate another. None of the ordinary opprobria of surgery, however, appear to offer serious obstacles to the genius of these "honorable and experienced" gentlemen.

Our unknown correspondent makes a marginal note that the country is being flooded with these quack advertisements; and we do not doubt it. The wonder is, not that they are issued,—for there are always fools ready to be gulled by them,—but that Governor Baker of Indiana, Governor Oglesby of Illinois, Senator Hendricks, and a number of other known high officials, clergymen, judges, and editors, are willing to lend their names to a scheme for fleecing the afflicted under false promises of cure.

How are such things to be put down? We believe that the only way is to take a few of the victims and make their cases the ground of suits against these swindlers for obtaining money under false pretences. We feel confident that before long the end of the "capital stock of $500,000, invested," say these traders in human misery, "in obtaining the needful appliances," would be reached; and we much doubt whether the aforesaid governors and judges would come forward to give bail to prevent their protégés from the imprisonment they so richly deserve.

It is all very well to laugh at the clever tricks of such quackery; but there is another side to the picture. Who shall paint the scene adequately? In how many a simple, honest farmer's or laborer's family is there a lame or diseased child, to whom a gleam of hope comes that he may be restored quickly and without pain to health and activity! The parents summon all their resources; they borrow and beg; they take a toilsome journey, sacrifice time, money, trouble, that their afflicted one may find the promised relief. A "payment in advance" is of course demanded; a form of treatment is gone through with, until there is no more money to be extorted from them, and then they are told, "You did not come to us soon enough," and the sufferer is remanded to despair; his case, however, is vaunted as a fresh triumph, with a false picture of his condition "as dismissed," and made a decoy for other victims.

DARWINISM.

MANY excellent persons are much exercised about the Darwinian theory, which they think is hostile to the interests of every religious belief. They forget, as did the opponents of geological science not very long ago, that two truths cannot clash. If "Darwinism" is well founded, it must

be in accord with every other fact, whether of natural, moral, mental, or spiritual philosophy. If it is inconsistent with any accepted law, one or the other must inevitably fall; and as inevitably it will be the true that will stand, the false that will perish.

Let the faint-hearted take courage from the lines so often quoted, but too good ever to lose their force:

> "Truth, crush'd to earth, will rise again;
> The eternal years of GOD are hers;
> But error, wounded, writhes in pain,
> And dies among his worshippers."

We cannot, however, see that the theory of Darwin need at all militate against revealed religion. This is a matter of man's inner consciousness, not to be sustained by any array of logic, but resting upon its fitness to supply his felt needs. He finds himself endowed with an immaterial nature, unsatisfied by material things; and this truth remains, whether his remotest ancestor was a monad or an angel. At some past period, the Godlike image was impressed upon the human frame, and the power to know, to reverence, and to love his Maker was bestowed upon the soul within it. To fear that any discovery of science can alter or destroy this gift, is unworthy of those who have received it.

THE CHLOROFORM QUESTION.

AN apology can hardly be needed for again bringing this matter before our readers. It is too important to be left undiscussed; and we are the more urgent in pressing it, because the adherents of chloroform say nothing. They cannot deny that hundreds of lives have been sacrificed to their favorite anæsthetic, and yet they do not explain why they subject others to its fearful risks.

One most important point we do not remember to have seen noted by any of those who have opposed the use of this article; and that is, that impunity on one occasion does not insure immunity on the next. We have ourselves seen chloroform given apparently with perfect safety to a patient, who, three or four weeks afterwards, died while inhaling it for a second operation.

If between two points there were two roads available, over one of which hundreds of thousands travelled safely every year, while of those who took the other a certain percentage, however small, mysteriously failed to reach their journey's end, we think the latter would soon become grass-grown.

CORRESPONDENCE.

THE EQUINE INFLUENZA.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

SIR,—It may interest some of your readers who have not had the time or the curiosity to inquire into the nature and significance of the epizoöty which now prevails among horses, to know that similar epidemics have been of very frequent occurrence, and that they have often preceded or accompanied the influenza in the human race. In many instances the animals have suffered a month or even two months before the outbreak of the disease among mankind; and it may therefore be well for those of us whose ideas upon the subject are neither definite nor clear, to prepare for the approach of influenza by a study of its peculiarities of type, and of the very different treatment it requires from that of ordinary catarrhs.

I transcribe from the "Annals of Influenza" (Syd. Soc. ed., 1852, p. 374) the following passage, which summarizes the numerous facts relating to the subject which are contained in the volume:

"The poisonous influence has not been confined to the human species. In this respect, influenza is not peculiar. The plague described by Homer first broke out amongst the dogs, then seized the mules, and lastly made its attack on man; and it is natural that animals constantly exposed to the weather should be subject to diseases connected with atmospheric distemperature, but in no disease is this kindred liability more manifest than in epidemic catarrh.

"Cows and horses have especially suffered, as is observed in the epidemics of 1733, 1737, 1743, 1803, 1831, and 1837.

"Dogs, cats, deer, sheep, and swine have not enjoyed any immunity; poultry also, and even fish, seem occasionally to be affected with the morbid influence.

"As respects horses, there is reason to believe that close stables have had considerable effect in promoting the diffusion and increasing the virulence of the disorder, and, indeed, that the congregation of many animals in the same stable, however spacious, has an unfavorable influence.

"Analogous facts may be collected from our Navy Returns of the Mediterranean Service, in the years 1832 and 1837."

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"EIGHT CHILDREN AT ONE BIRTH."

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—Through the kindness of an Ohio correspondent, I am able forever to set at rest the story with the above heading, which is now going the rounds of the medical press.

Mr. Timothy Bradlee, of Johnston Township, Trumbull County, Ohio, is a well-to-do farmer, Democratic politician, and practical joker, often trying his skill even upon his most intimate friends; and, as such men's

chickens often come home to roost, some four or five years ago one of his jokes was retorted upon him in the getting up of a hoax that his wife had brought him eight children at a birth, and, to add to the fun, named the boys after noted Republican politicians. This story was started in private, by a well-known army general and member of Congress, now deceased, whose name need not be mentioned, in return for a trick played upon himself by "Tim Bradlee," as he is generally called, and was a current report in his own neighborhood, where he is well known, until it was finally fully distributed and worn out. It was revived last summer in a Cleveland paper, by another victim, out of revenge; and hence its getting away from a locality where, from the nature of the original story, it told its own tale and deceived no one. R. P. H.

OBITUARY.

DR. GEORGE PEPPER.

IN a recent issue we briefly alluded to the death of this exemplary medical gentleman, the younger son of the late Dr. William Pepper, the distinguished Professor of Practice of Medicine in the University of Pennsylvania. His services to the profession necessarily embraced but a few years of active personal labor, for he died at the early age of thirty-one; but in the brief period which elapsed from his graduation, in 1865, he held numerous positions of trust and honor. He commenced the study of medicine in 1862, but temporarily abandoned it to enter the army as a private in the Sixth Pennsylvania Cavalry, becoming afterwards promoted to a lieutenancy, and was honorably discharged the following year for disability, in consequence of a troublesome dislocation of the clavicle, caused by his horse falling with him while crossing a frozen stream. He was a member of the various medical and scientific societies of our city, Treasurer of the Pathological Society, Secretary of the Obstetrical Society, Physician to the Magdalen Home, Accoucheur to the Philadelphia Hospital, Assistant Physician to the Nurses' Home, Corresponding Member of the Gynæcological Society of Boston, etc. He published numerous short articles in the Proceedings of the Pathological and Obstetrical Societies; an interesting case of Retroversion of the Uterus, in the Pennsylvania Hospital Reports for 1868, etc. As a lecturer he devoted himself especially to the diseases of women, on which he gave clinical courses for several years at the Nurses' Home, Philadelphia Hospital, and elsewhere. His practice was speedily acquired, and grew rapidly, but he was not physically adapted to permanently endure its hardships, having, from the early part of 1871 especially, suffered successively from typhoid fever and pneumonia; his final illness, which terminated on the 14th of September last, being of a lingering nature, and marked with many changes of condition.

The character of Dr. Pepper was distinguished by unusual single-mindedness and guilelessness; by warm affections, rare high principles, and a most love-winning nature. He was possessed of an unusually retentive memory, and of remarkable artistic power and mechanical ingenuity. As a physician he was accomplished, enthusiastic, and devoted, and early exhibited a therapeutic skill, especially in his favorite branch of gynæcology, which rapidly led to success.

PROCEEDINGS OF SOCIETIES.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

DIRECTOR W. S. W. RUSCHENBERGER, M.D., in the chair.

Present,—Prof. Joseph Leidy, and Drs. Tyson, I. Norris, J. G. Hunt, Wells, Hartshorne, McQuillen, and Richardson.

Visitors,—Dr. Penrose, U.S.N., Dr. Deschert, and Dr. Noels, of San Francisco, California.

Dr. JAMES TYSON made a very interesting verbal communication upon the subject of Practical Histology in Germany, giving an account of the Pathological Laboratory of Prof. Stricker in Vienna, and of the methods employed by the students under his supervision, describing particularly the modes there in use for demonstrating connective tissue, muscular structure, the terminal plates of nerve-fibres, etc., also the usual methods of gold and silver staining and of mounting objects for permanent preservation.

The Director inquired how long any specimen was allowed to soak in lime-water when preparing it for dissecting the connective-tissue fibrils, as had just been suggested.

Dr. TYSON replied that no particular time could be specified, and, in fact, the completion of the process was only to be determined by trial of small fragments by dissection with needles at intervals, so that sometimes one, two, or three days were occupied in making the preparation.

Prof. LEIDY asked how any adherent particles of wax were removed from the edges of thin sections of tissue which had been cut from specimens after undergoing the process of imbedding as the doctor had just described it.

Dr. TYSON replied that practically little difficulty was experienced, as the particles of wax were found to fall off generally of themselves when the section was floated off in alcohol.

Prof. LEIDY further inquired whether Dr. Tyson had become acquainted with the method by which thin transverse sections of minute animals—as, for example, the Anguillula aceti—were prepared.

Dr. TYSON replied that he had not seen such sections made, but believed they could be accomplished by cutting at random through great numbers of the objects in question and then picking out the sections which happen to be made in the manner required.

Dr. J. G. HUNT remarked that we have now an improved cell, specimens of which were last spring exhibited before the Section, which was so ingeniously contrived as to show perfectly thin transparent objects in all portions without the need of making sections; moreover, he observed, there was no need for imbedding them or other objects in wax, since a cheaper and more convenient substance for the purpose could be found in the ordinary paraffine of the shops. In regard to the water-beetles mentioned by Dr. Tyson as furnishing to German microscopists their favorite specimens for demonstrating the Doyerian plates, he stated that the same or a closely-allied species was abundant in our own creeks and ditches, and could readily be obtained by every one for investigation.

Prof. LEIDY explained, by the aid of drawings upon the blackboard, that what he wished to understand was how a transverse section of a vinegar eel, for example, or of the intestinal canal of a very minute insect, as figured by some German naturalist, was prepared. He also remarked that no observation of entire organisms,

either in improved or unimproved cells, could give the kind of information respecting internal structure afforded by such sections as he referred to.

Dr. J. G. HUNT thought perhaps the drawings mentioned by his friend Prof. Leidy were only diagrammatic, and suggested, moreover, that the binocular microscope would often, in such researches, do away with the necessity for a dissection.

Dr. J. G. RICHARDSON inquired what was the exact status at present of Prof. Stricker and his disciples in the controversy with Prof. Cohnheim respecting the origin of pus-corpuscles in inflammation.

Dr. TYSON replied that Prof. Stricker continues to hold that Virchow's and Cohnheim's views are both partially correct,—*i.e.* that the leucocytes of pus arise both from the proliferation of the proper cells of the inflamed tissues and from the wandering out of the white blood-corpuscles through the walls of the vessels.

Dr. HUNT proposed that a committee be appointed, at some suitable time, to compare and report on methods for the preparation and mounting of specimens, and thought that their decision would have a practical value to microscopists throughout the country.

Dr. TYSON further observed that he considered Dr. Klein, now of London, the most expert teacher of microscopy he had ever met, and believed that if opportunities continued to be afforded him in England for carrying out his methods of instruction, no one need go further than Klein's laboratory to obtain a complete knowledge of microscopic manipulation.

GLEANINGS FROM OUR EXCHANGES.

SNAKE-BITES.—In an article on Dr. Fayrer's recent work on the poisonous serpents of India, the *Brit. and For. Med.-Chir. Review* (October, 1872) says, "The fatality from snake-bite in the presidency of Bengal appears to be frightfully high. In the year 1869 there were upwards of 11,000 known and reported cases, and the number of unreported cases was probably not much less. A liberal system of rewards for dead snakes would undoubtedly lessen the evil.

"If Dr. Fayrer's work had done nothing else than show the utter inutility of all the so-called antidotes, whether of native or European origin, against the bite of the more poisonous of the Indian serpents, he would have rendered good service. Inutility is, in truth, not a sufficiently strong word to use with regard to them, for reliance upon them has often bereft the unfortunate victim of his only chance, by consuming the precious time which should have been employed in the use of the ligature, excision, and cautery. Ammonia, aristolochia, arsenic, Tanjore pills, eau de luce, liquor potassæ, numerous native remedies, snake-stones, the injection of ammonia, potassa, Condy's fluid, have all been tried, and were all found equally unavailing when an animal had been fairly bitten by a vigorous cobra. But both cases and experiments confirm the value of the ligature when tightly and promptly applied above the bite, and followed by speedy excision and the application of the actual cautery, or of strong nitric acid; or, better still, in the case of a finger or toe, by immediate amputation at the next joint above. The following is Dr. Fayrer's summary of all that he thinks can be done:

"'I would summarize the treatment of snake-bite as follows: Apply at once a ligature or ligatures at intervals of a few inches, as tight as you can possibly tie them, and tighten the one nearest to the wound by twisting it with a stick or other such agent. Scarify the wound and let it bleed freely. Apply either a hot iron or live coal, or explode some gunpowder on the part, or apply either carbolic or some mineral acid, or caustic. Let the patient suck the wound whilst you are getting the cautery ready, or if any one else will run the risk let him do it. If the bite be on a toe or finger, especially if the snake has been recognized as a deadly one, either completely excise or immediately amputate at the next joint. If the bite be on another part, where a ligature cannot be applied, or, indeed, if it be on the limbs above the toes or fingers, cut the part out at once completely. Let the patient be quiet. Do not fatigue him by exertion. When, or even before, symptoms of poisoning make their appearance, give eau de luce, or liquor ammoniæ, or carbonate of ammonia; or, even better than these, hot spirits and water. There is no occasion to intoxicate the person, but give it freely, and at frequent intervals. If he become low, apply sinapisms, and hot bottles, galvanism, or electro-magnetism, over the heart and diaphragm. Cold douches may also be useful.'"

DIAGNOSIS OF TUBERCULOSIS (Dr. M. Heitler, Vienna: *Wiener Mediz. Presse*, October 6, 1872).—The diagnosis of tubercle is not ordinarily difficult; the appearance of the patient and the history of the case often render an examination superfluous, excepting for the purpose of a more thorough knowledge of the extent of the ravages of the disease in the lung. Every physician of experience, however, knows that there are some cases in which it is difficult to to say whether tubercle is present or not in the diseased lung. The disease does not always occur in its characteristic form, but in a group of symptoms by which we may often be misled. Not only miliary tubercle offers no sure means of recognition, but also the subacute and chronic forms present many difficulties to the diagnostician, in their stage of development, by a group of symptoms which belong also to other diseases, and which mask the tubercular nature of the disease in question.

Very frequently a patient comes complaining of palpitation of the heart, a weak stomach, and other digestive troubles. He says "he has no disease of the chest, and has never been troubled by a cough," etc.; but if we continue our questions we discover that in many cases a slight weakness has been noticed by the patient, and that he has commenced to grow thin, he knows not why, and that he has night-sweats: others say they have noted none of these latter symptoms, but that they suffer from palpitation of the heart, dyspepsia, etc., and they think they have heart-disease or disease of the stomach.

If we examine such persons, we find nothing abnormal in the organs of circulation or digestion, but we may find a marked dulness in the apices of the lungs. However, not only symptoms characteristic of other diseases may render the diagnosis of tubercle difficult, but the pulmonary symptoms themselves may at times render the diagnosis of tubercle doubtful or improbable. It sometimes happens that the tubercular disease is ushered in under the form of a broncho-blennorrhœa with copious mucous expectoration, and in the lungs we find symptoms of catarrh only.

In such cases, however, the marked increase in the emaciation, the weakness and continued fever, lead us naturally to a repeated examination of the chest, and very soon we discover dulness on percussion, with other characteristic symptoms.

The most difficult cases are those where we have to diagnose between a croupous pneumonia undergoing resolution, and a tuberculosis. It is often impossible at the first examination to decide the nature of the disease; and a period of observation extending over several days is necessary in order to make a positive diagnosis.

In other cases we can at once, by means of the physi-

cal signs and the history of the case, establish the diagnosis. If, for example, we find a symmetrical dulness extending over the entire lung, accompanied by a consonating subcrepitant râle, or bronchial breathing, with fever, and if we discover that the disease has reached that point, or passed it, when, if it were an ordinary pneumonia, resolution should have commenced, —*i.e.* the beginning, or, at latest, the middle, of the second week,—we are justified in supposing that we have to deal with a case of tuberculosis, and not with one of pneumonia in the stage of resolution.

I lay special stress on the similarity of the physical signs found throughout the tubercular lung; whereas in the lung of a patient affected with pneumonia we may find fine vesicular breathing at the base, while above there are various râles, and bronchial respiration. In tuberculosis the part first attacked does not become free as the process of disease spreads throughout the lung, and at last we may hear the same sounds at all points in the lung.

There are other cases in which a positive diagnosis can only be made from the history and the course of the disease. Suppose we find in the upper portions of the lungs a dulness, with consonating subcrepitant râles, confined either to a very small spot, or extending over the greater part of the superior lobe of the lung. If the individual is anæmic, and states that he has already had fever and a cough for several weeks, and that the latter preceded the fever, and that emaciation has been slowly progressing, we may safely conclude that the physical signs indicate the commencement of a tubercular infiltration, and not the resolution of a croupous pneumonia.

In many cases the history and the appearance of the patient furnish no sure guide to a diagnosis of tubercle. In many cases the individual has been perfectly well, has a well-formed thorax, and looks pretty well at the time the diagnosis is made. In such a case only a consideration of the physical signs attending a pneumonia in an advanced stage of resolution, and the course of the disease, can render our diagnosis beyond doubt. In a few days the diagnosis will become clearer, the circumscribed dulness, which sometimes remains stationary quite a long time, will suddenly spread, the fever will continue very high, and the patient will rapidly fall into a state of collapse, with all the symptoms of well-defined tuberculosis. Dr. Heitler will continue his reflections upon this subject, which he has ample opportunity for studying in the wards of the "Allgemeines Krankenhaus" in Vienna.

Hearing One's Own Voice through the Eustachian Tube (Prof. Rüdinger, of Munich: *Monatsschrift für Ohrenheilkunde*, September, 1872).—In this article Prof. Rüdinger adduces what he considers a proof that in the normal condition the Eustachian tube is closed.

While lecturing, the Professor performed the ordinary act of swallowing, and heard the usual cracking sound in each ear, accompanied by the temporary sensation of opening of each tympanum. In the right ear, however, the sensation continued, attended with an increased perception of the words which the Professor was uttering in his lecture.

He says, "My own voice appeared to me to be higher and of another 'clang-tint' or timbre (clang-tint has been proposed by Tyndall as a translation of the German word 'Klangfarbe'), and at last became painfully audible." This continued for some moments; but at last the Professor, unable to endure the pain, swallowed, and the phenomenon disappeared. Rüdinger says, "I have no other explanation of the supposition that as I performed the act of swallowing, a spasmodic condition of the dilator tubæ occurred, than my own peculiar subjective sensation.

"The continuation of the cracking sound and open sensation in the right ear seems to show primarily that a spasmodic contraction of the muscular portion of the Eustachian tube occurred; and, as instantly my own voice with altered clang-tint was heard as if through the Eustachian tube, the supposition seems natural that the tube was in a very different condition from its ordinary one.

"All the phenomena seem to indicate a spasmodic patulence of the Eustachian tube, rather than a spasmodic contraction of the stapedius muscle or the tensor tympani, which some might suppose had taken place."

If the observation and indication are correct, we may conclude that the Eustachian tube is closed in the normal condition, in the manner I have elsewhere described, and that it must be closed in order that our own voices may not be heard to a painful degree by ourselves, through it.

C. H. B.

The Various Applications of the Irrigation-Apparatus ("Ueber die vielfache Anwendung des Irrigationsapparates:" *Wiener Mediz. Presse*, 33, 34, 36, 1872).—By Dr. Seyfert, of Oderan.

The apparatus alluded to in this work is that which is usually known in our country as "Thudichum's douche." It is more properly called Weber's nasal douche, from its discoverer, Ernst Heinrich Weber, of Leipsic.

Weber, while making his experiments upon the sense of smell, discovered that if a stream of water is passed through one nostril into the naso-pharyngeal space, the soft palate is made to rise reflectively and close the communication between the naso-pharyngeal space and the pharynx. The stream of water, having no other means of escape, returns by the way of the opposite nostril.

Theodore Weber, of Halle, was the first to make use of this physiological fact clinically.

This method of applying medicated solutions to the nostrils, pharynx, and even the tympanum, has been widely used, with good results; although within a few years much has been written against its use, by distinguished men.

Seyfert lays down three leading principles to be observed in the application of the nasal douche, viz.:

1. The vessel containing the fluid to be injected must be *not higher* than the forehead of the patient.

2. The forehead must not be inclined forward; if it is too much inclined, the fluid enters the frontal sinuses.

3. The fluid used in every case must be tepid, and in bad weather the patient should not leave the room for a quarter of an hour after the use of the douche.

Dr. Seyfert says he has never known a case of secondary inflammation to occur where these rules have been observed.

Although many have written in unfavorable terms of the use of this means of treatment, the author says he has never seen any bad results from the use of the douche, during a considerable experience in the clinic of Prof. Wendt in Leipsic,—where it has always been used with the careful observance of the rules already given.

The author says he is convinced that in the alleged unfortunate case (*Moos and Knapp's Archives*, vol. i.) some error in the use of the apparatus must have occurred, especially in respect to the height of the vessel above the forehead.

C. H. B.

New Treatment of Urethral Stricture.—*Le Mouvement Médical* quotes from the *Gazette Hebdomadaire* of August 9 the following acount of a plan advocated by M. Coze, formerly Professor in the Faculty of Medicine at Strasbourg:

"In some cases of very narrow stricture, the employment of a sufficiently powerful pressure by means of

liquid facilitates greatly the introduction of bougies which could not pass a few minutes before.

"The apparatus is very simple, and easily made. It consists of a funnel with a rubber tube, the tube having a stop-cock, and ending in an attachment to a glass pipe with a rounded end. The funnel, filled with water, is raised to any desired height, and the stop-cock turned so as to let the water flow to the end of the glass tube, which is then inserted into the urethra, and the force of the column of liquid brought to bear on the stricture.

"The advantages claimed for this plan are—1. That it is efficient. 2. That it is painless and safe. 3. That the dilatation effected by the water can be kept up by the continued retention of instruments.

"M. Coze thinks the water used should have been boiled, to avoid the introduction of germs or other injurious matters into the bladder.

MISCELLANY.

Modern Giants.—The race of giants is not extinct; and Barnum might make a fortune by bringing over the Goshen family from Turkey in Asia, who are descendants of the Anakims of Palestine. Colónel Ruth Goshen, thirty-three years old, one of this family, now residing in Algonquin, Illinois, born among the hills of Palestine, and seven feet and eight inches in height, recently entered the office of the *Scientific American*. He is the fifteenth and last child (the baby) of a family of fifteen,—ten sons and five daughters,—sired by a patriarch now ninety years old, living in the valley of Damascus, and by occupation a coffee-planter. This venerable sire weighs at the present time five hundred and twenty pounds avoirdupois, and his wife, aged sixty-seven, weighs five hundred and sixty pounds. The entire family are living, and not one of them weighs less than five hundred pounds. The oldest son weighs six hundred and thirty pounds, and the youngest (the Colonel), outstripping them all, weighs six hundred and seventy pounds. Not one of the family is less than seven feet in height. Ruth was a colonel in the Austrian army in 1859, and a colonel commanding in the Mexican army at the battle of Pueblo, May 5, 1862, in which the Mexicans were victorious. His father at one time resided at Leeds, England, but returned to Turkey in 1845. The colonel married in Leipsic, Germany, a woman weighing one hundred and ninety pounds, and five feet nine inches in height; the union has been blessed with two sons, who give promise of rivalling their father in stature. He is a finely-proportioned man; walks with a firm and elastic step; is as straight as an arrow, and has coal-black eyes, hair, and moustache.

The Government at Constantinople have just determined that instruction in the Imperial School of Medicine shall be given in Turkish, and have removed all professors who cannot speak the national language. The Turks say they started their school as a national school, and not as a foreign one. The authorities have therefore determined to run the risk of the change, and to attempt to get for this school, as for others, books and teaching in the vernacular. They maintain that, as medicine has for ages been taught in Arabic, it can be taught in Turkish. Several French-speaking professors have spent many years in the country, and have not chosen to acquire the language.

A man was sentenced to death at the Old Bailey who had a wen upon his throat weighing between thirty and forty pounds. To hang him was impossible without circumstances of revolting cruelty. The case found its way from the lawyers to the surgeons; the latter obtained his pardon, and took off the tumor. John Hunter was the operator. The man, his offence not having been of a very heinous kind, though the laws made it at that time capital, was taken into his service, and used to show his own wen in his master's museum. The facts are narrated in Southey's "Doctor."

Suicide of Professor Treitz, of Prague.—Dr. Treitz, who has been for the last twenty years a most popular Professor of Anatomy in the University of Prague, has recently, in a fit of melancholy, destroyed himself by means of cyanide of potassium. Notwithstanding the great popularity of his teaching among his pupils, out of his theatre Treitz was never accessible, having had for years past the reputation of being a "man-hater."

The first number of the *Chicago Medical Register and Directory* has been published by a book firm of that city, under the supervision of Drs. Freer, Davis, Byford, and others. In the cities where similar works have existed for some years, they are considered not only useful, but indispensable in the office of every active physician.

New University.—A new university was announced to be opened on the 1st inst., at Klausenburg, the capital of Transylvania. The town already possessed a Medico-Chirurgical School, the teachers in which were to be professors of their respective subjects in the Faculty of Medicine of the new institution.

The *Medical and Surgical Reporter* says that the old buildings of the Maryland Hospital, Baltimore, Md., are to be torn down shortly, to give place to a more imposing structure under the munificent endowment of Johns Hopkins, Esq., amounting to $2,000,000, to be known as the "Hopkins Hospital," for the benefit of people of color.

False Certificates of Vaccination.—Dr. Thomas Black Webster, Isle of Skye, has been convicted at the Inverness Circuit Court of fabricating false certificates of vaccination. There were twenty charges proved against the defendant, and he was sentenced to four months' imprisonment.

Drowned in the Discharge of Duty.—Dr. Furnell, of Castle Connell, Ireland, was drowned in the river near that place, in August last, by the upsetting of his boat, while on the way to visit a patient. He was a good swimmer, but became entangled in the water-weeds near the shore.

HONORS TO ROKITANSKY.—Privy Councillor Prof. Rokitansky has just received from the Emperor Don Pedro the cross of Commander of the Brazilian Order of Roses.

NEW HOSPITAL.—The new City Hospital at Worcester, Mass., is to have a frontage of 296 feet, with a centre building 60 by 62, wings 60 by 152, and three towers, —the central one 114 feet high, and the others 80. The cost of the whole is estimated in the neighborhood of $300,000.

A WORD TO ENGLISH ETHERISTS FROM DR. SQUIBB.—"It may be safely said that those who resort to it [ether] after a long use of chloroform, and acquire the little skill necessary to use it well, will have a sense of safety and satisfaction which they never knew before."

THE PRESBYTERIAN HOSPITAL in New York was dedicated on the 10th ult., with much *éclat*. Mr. James Lenox made an offer of $125,000 towards the $250,000 endowment fund desired, provided an equal amount was subscribed by others.

THE unveiling of the statue erected in Penzance (his native town) to the memory of Sir Humphry Davy took place on the 15th ult. The high standing of the Cornish chemical philosopher has at last been substantially recognized.

MR. ERASMUS WILSON, on the 11th of October, laid the foundation-stone of a house for boarders at the Medical College at Epsom, in which no restrictions as to the pupils being sons of medical men are to obtain.

NEW OBSTETRICAL JOURNAL.—*Le Mouvement Médical*, September 14, announces the commencement of a bi-weekly, the *Gazette Obstétricale*, to be edited by M. Verrier. M. Savy, of Paris, is the publisher.

DR. BUTLER, Superintendent of the Asylum for the Insane at Hartford, Conn., has resigned his office, which he had held for thirty years.

DR. ADDINELL HEWSON, of this city, has been obliged to go abroad with his wife, who has been in feeble health for several years past.

WE understand that the cause of General Meade's death was the formation of a heart-clot during an attack of pneumonia.

WE see it stated that the health of Sir Charles Locock, M.D., is in such a state as to cause grave apprehensions.

BEQUEST.—The Albany Hospital has received a legacy of $10,000 from the late William H. De Witt.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending Nov. 16, 1872, were 268; of which 11 were of bodies brought from the country; making the mortality in the city 257; of the whole number, 161 were of adults, and 107 of minors. Among the causes of death were:

Consumption of the Lungs	47
Other Diseases of the Respiratory Organs	43
Diseases of the Circulatory Apparatus	11
Diseases of the Brain and Nervous System	38
Diseases of the Digestive Apparatus	12
Zymotic Diseases	14
Typhoid Fever	8
Cholera Infantum	2
Casualties	17
Murder	1
Suicide	1
Debility (including "Inanition" and "Marasmus")	26
Still-born	11
Old Age	11

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER. Max.	Min.	BAROMETER. (2 P.M.)
Nov. 10	50.0°	38.0°	30.32 in.
" 11	57.0	40.0	30.31 in. (Rain.)
" 12	59.5	53.0	29.93 in. (Rain.)
" 13	58.0	41.0	30.25 in. (Cloudy.)
" 14	53.5	46.0	29.90 in. (Cloudy.)
" 15	39.5	31.5	30.10 in.
" 16	45.0	31.5	30.19 in. (Snow.)

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM OCTOBER 6, 1872, TO NOVEMBER 9, 1872, INCLUSIVE.

MILHAU, J. J., SURGEON.—Granted leave of absence for thirty days, with permission to leave the limits of the Department. S. O. 230, Department of the South, Oct. 6, 1872.

DE WITT, CALVIN, ASSISTANT-SURGEON.—To report to Major John C. Tidball, 2d Artillery, to accompany his command as far as Raleigh, N.C., via Omaha, Nebraska; on completion of this duty, to return to San Francisco, and report to the Medical Director, Department of California. S. O. 197, Military Division of the Pacific, Oct. 25, 1872.

RANDOLPH, JOHN F., SURGEON.—To report in person to the Commanding General Department of the Platte, for assignment to duty. S. O. 269, War Department, A. G. O., Oct. 29, 1872.

DE GRAW, C. S., ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Fort Davis, Texas. S. O. 195, Department of Texas, Oct. 31, 1872.

KINSMAN, J. H., ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Fort Ellis, Montana Territory. S. O. 216, Department of Dakota, Oct. 31, 1872.

TILTON, H. R., ASSISTANT-SURGEON.—Granted leave of absence for thirty days. S. O. 213, Department of the East, Nov. 2, 1872.

MUNN, C. E., ASSISTANT-SURGEON.—Granted leave of absence for thirty days, with permission to apply for an extension of thirty days. S. O. 276, War Department, A. G. O., Nov. 2, 1872.

BILL, J. H., SURGEON.—Relieved from duty in Department of the Columbia, to proceed to New York City, and, on his arrival there, report by letter to the Surgeon-General. S. O. 281, War Department, A. G. O., Nov. 7, 1872.

HUBBARD, VAN BUREN, ASSISTANT-SURGEON.—Relieved from operation of S. O. 19, c. s., War Department, and to report by letter to the Commanding Officer, Department of the Gulf, for assignment to duty. S. O. 281, War Department, A. G. O., Nov. 7, 1872.

VICKERY, R. S., ASSISTANT-SURGEON.—To accompany detachment of 1st Artillery, leaving New York City on 9th inst., to Barrancas, Florida, and, on arrival there, to report to the Commanding Officer, Department of the Gulf, for assignment. Telegraphic order of 5th inst. from A. G. O.; confirmed by S. O. 281, War Department, A. G. O., Nov. 7, 1872.

GODDARD, C. E., SURGEON.—Assigned to duty as Post-Surgeon at Fort Hamilton, N. Y. Harbor. S. O. 129, Department of the East, Nov. 9, 1872.

SATURDAY, NOVEMBER 30, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURES

ON PROLAPSE OF THE WOMB.

BY WILLIAM GOODELL, M.D.,

Physician-in-Charge of the Preston Retreat; Clinical Lecturer on the Diseases of Women and Children in the University of Pennsylvania.

LECTURE II.

WE pass now to the third form of prolapse of the womb,—that from (the so-called) *hypertrophic elongation of the supra-vaginal portion of the cervix.* But to understand it fully we must first furbish up our knowledge of the anatomy of the parts involved.

The womb is described as having a body, or corpus, and a neck, or cervix. The latter is divided into two unequal parts,—the glandular portion, which is comprised between the os externum and the os internum, and the non-glandular portion, or isthmus of the cervix, viz., that intermediate and contracted portion which unites the fusiform and glandular cavity of the neck to the triangular cavity of the body. The length of the healthy multiparous womb is about three inches. Of this the glandular portion of the cervix measures approximately one inch and a quarter, the isthmus one-half of an inch, and the body one inch and a quarter.

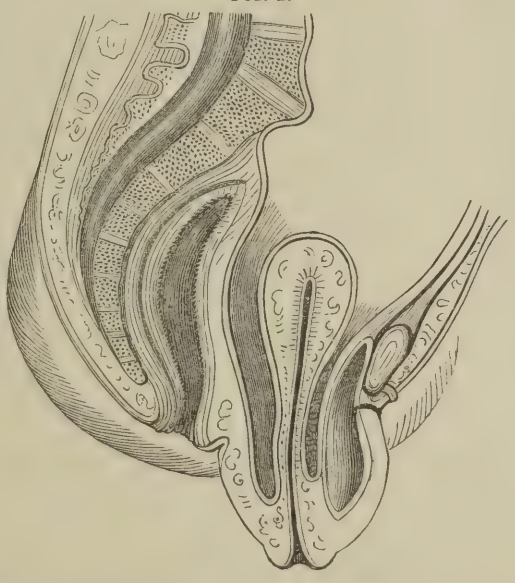
By the terminal fibres of the vagina, which gird it at the middle third of its glandular portion, the cervix uteri is still further divided into the infra-vaginal and the supra-vaginal portion. The free extremity corresponds to the infra-vaginal portion: about this there is no dispute. But the supra-vaginal portion of the cervix, as commonly described, is that portion of it which lies between the apparent vaginal insertion and the body of the womb. It therefore is made to include the upper third of the glandular portion of the cervix, and the whole of the non-glandular portion,—viz., the isthmus; and these two portions are generally believed to be the seat of the elongation. But this strikes me as an error, founded upon a misconception of the true extent of the supra-vaginal portion of the cervix.

Anatomically, this portion of the cervix is limited to the isthmus, and is therefore above the glandular portion. For, although the bulk of the vaginal fibres lie below the internal os, and the surface of attachment is to the eye a narrow one, yet in reality it is a broad one, covering two-thirds of the cervix, and reaching up to the os internum, where its fibres end.

Again, the base of the bladder rests upon the anterior wall of the vagina, to which it is fused by connective tissue, and it is also firmly attached to the anterior aspect of the cervix as far up as the os internum. These fibres of attachment are so closely blended with those of the vagina, that the supra-vesical portion of the cervix is practically the supra-vaginal portion, and each, therefore, lies above the os internum, and consequently above the glandular portion of the cervix. I beg you to bear these anatomical facts in mind, because on them hinge the arguments by which I hope to prove to you that the elongation found in this affection is not essentially hypertrophic; and that it is not the commonly accepted supra-vaginal portion of the cervix which is principally lengthened out, but rather the supra-glandular portion of the womb, that is to say, the isthmus and the lower portion of the corpus. But, until this has been proved to you, I shall adhere to the conventional name and attributes of this affection, although they assume it to be an hypertrophy, and its seat in the supra-vaginal cervix.

By studying this diagram it will be plain to you

FIG. 2.



that a wide difference subsists between a prolapse of the whole womb by descent, and a prolapse from an elongation of the supra-vaginal portion of the cervix. The term prolapse, as applied to this kind of elongation, as well as to that of the infra-vaginal portion, is a misnomer; because, although in both the cervix may protrude from the vulva, it does so more through elongation than from displacement. There is, in other words, a descent of the cervix,—a prolapse of the cervix, if you please, without necessarily any sinking down whatever of the fundus. Indeed, these two affections would seem to imply such a firmness in the suspensory ligaments as should, at first, keep the fundus from sagging down in the pelvis. This brings us at once upon debatable ground; but we will prudently keep neutral, and not display our colors until the "situation" has been studied out. But for that matter, to tell you the truth, I have hardly yet been able fully to make up my mind and range myself under any one banner. The question of hypertrophic elongation is to the gynæcologist what the late Schleswig-Holstein question was to European diplomatists. "I and another man," said Lord Palmerston, "were the only two persons in Europe who understood

this question. He is dead, and I—well, I have forgotten all I knew about it."

The woman who has just been brought in is greatly afflicted by the disease which we are discussing. In order to spare her feelings, and to give us ample facilities for studying the condition of her reproductive organs, I have had her completely etherized. She is forty-one years old, but hardship and over-work make her look much older. Her family consists of an invalid husband and six children, all of whom she supports by taking in washing. Five of her labors presented no difficulties; but the sixth, four years ago, proved tedious from the size of the child's head, and ended with the mishap of a torn perineum. She never afterwards felt strong; had lingering lochia, more or less leucorrhœa, "bearing-down feelings," and other uterine symptoms, which she attributed to her getting up and working too soon. Three years ago her urine began to scald her. The pain, at first bearable, daily grew worse, and soon became so acute that she now empties her bladder as seldom as possible. Not long after this, a tumor began slowly to protrude more and more from the vulva. It was and still is reducible, but its reduction, which at first gave her no pain, causes her so much suffering that she has dispensed with a perineal pad, long worn to keep it within the vagina. Her condition is truly a sad one: micturition and defecation are both difficult and painful; the former exceedingly so. The urine, no longer voided in a jet, dribbles over her person and excoriates it. She straddles when walking, complains bitterly of the constant dragging weight of the tumor, and now, in the prime of life, finds herself too crippled to work; while, to add to her afflictions, both she and her eldest daughter are confirmed epileptics.

This, in brief, is the history of the case; but it leads to no diagnosis more positive than a shrewd guess. Certainty can be gained only by a careful examination of the diseased parts. As I separate the thighs, you see protruding from the vulva this large boggy tumor, shaped like a truncated cone. Its apex is evidently occupied by the vaginal portion of the cervix, which is clubbed, snout-like, and apparently much hypertrophied, but not elongated. Upon a closer inspection, this condition of the cervix seems to be owing not so much to a hyperplasia of its parenchyma, as to a thickening of its mucous investment, to the gaping open of a lacerated os, to the turgid papillæ of the cervical canal, and to the exuberant growth of its submucous layer. There is an eversion of the lips, and a partial rolling out of the *arbor vitæ*. It constitutes, in fact, an imperfect attempt at an inversion of the glandular portion of the cervix, in which the loose mucous lining has participated to an extent greater than that of the more resisting parenchyma.

See this opening at the apex; it is not the external os, as you may think, but a portion of the canal much higher up. Here, about an inch from it, and describing an irregular margin around it, is the os externum. Let me prove this to you. I stroke down and pull together the jagged and widely divergent lips of the os externum, and now the cervix is somewhat elongated, reduced one-half in thickness, and made to look like a bishop's mitre. The vagina is wholly inverted; whilst partly upon it and partly upon the cervix are two large ulcers, one of them covered by a croupy exudation. These, I think, are attributable to friction from her clothing, to exposure to the air, and to the action of the dribbling urine.

Permit me to digress for a moment, in order to point out to you the difference in the behavior of true and false mucous membrane when exposed to atmospheric action. Under such circumstances, true mucous membrane—viz., that covered by conoidal epithelium—does not materially alter in structure. For instance: the lining membrane of the bladder in exstrophy; of the rectum in prolapse; of those air-tubes, the bronchia, does not become cuticular. Look at the folds and arborescent plicæ of this everted portion of the cervical canal; they are swollen and angry-looking, but not at all changed in structure. Contrast with them the squamous epithelium which lines the vagina and covers the vaginal portion of the cervix. It has become so derm-like as to resemble the pink skin of a new-born infant. There is here no sharp margin defining the limits of these two forms of mucous membrane, but the one shades into the other by transitional, or spheroidal, epithelium. It is this change of structure in the false mucous covering of the cervix that makes the dilating stage of labor so tedious in wombs that are or have been prolapsed. In such cases multiple incisions of the os have often been resorted to.

To determine whether the bladder is prolapsed, or whether it enters into the tumor as one of its constituents, I shall now pass in the uterine sound. As I expose the meatus, which is much sunken, a cluster of vascular growths comes into view. These are nothing more than hypertrophied mucous papillæ, and yet they are exquisitely sensitive. Their presence explains, in part, our patient's painful micturition; for, small as they are, from the irritation excited by friction and by the passage of the urine, they give intolerable anguish. These caruncles range in size from that of a millet-seed to that of a raspberry, but the suffering caused by them bears no relation whatever to the amount of growth they have attained. Mark the unusual course which the sound takes; it passes in almost vertically, with its concavity looking downward. I can feel its tip at a point half an inch from the apex of the tumor. You can now understand why, in passing her water, our patient experiences a difficulty apart from the pain caused by the presence of the vegetations. For, since a large portion of the bladder is outside of her body, the muscles of the abdomen can no longer compress it; and, further, the urethra is curved sharply around the sub-pubic ligament, and flattened against it. Clearly, then, the bladder is prolapsed, and its two walls, together with the utero-vesical fold of the peritoneum, and the inverted vagina, form the anterior half of the tumor. But what forms the posterior half? To ascertain this, I pass my index-finger into the rectum, and with my thumb push up the posterior wall of the inverted vagina. By this double touch I learn that a

small pouch of the anterior wall of the rectum (a rectocele) has been diverted into the protruded mass. This explains her difficulty in defecation. Again; you know that Douglas's pouch is so closely fused to the posterior *cul-de-sac* of the vagina that the descent of the latter necessarily involves that of the former. Hence we may unhesitatingly include this peritoneal fold among the constituents of the tumor.

(To be continued.)

ORIGINAL COMMUNICATIONS.

PRACTICAL HISTOLOGY IN VIENNA.

A COMMUNICATION TO THE BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA.

BY JAMES TYSON, M.D.

AT the request of the secretary, I have consented to give a verbal account of a recent brief experience in the laboratory of Prof. Stricker of Vienna, though conscious that I shall necessarily state some facts which are elementary, and familiar to many members of the section.

I am confident, in the first place, that those who are not familiar with the so-called "laboratories" abroad will be disappointed with the simplicity of their appointments in the majority of instances. Thus, the laboratory of Prof. Stricker consists of two moderate-sized apartments, one about thirty feet by fifteen feet, and the second half as large, with a still smaller private room, occupied by the Professor himself. In the largest room is a plain pine table, painted black, capable of accommodating eight or probably ten gentlemen with their microscopes. In the centre of this room, also, is a table like an ordinary dissecting-table, on which investigations are made upon animals, generally rabbits and dogs, secured in position by means of Czermak's "rabbit-holder." This consists of a rectangular piece of board perforated at the sides and one end by holes, through which cords can be conveniently passed. At the remaining end a semicircular piece is sawed out, producing a concavity which will conveniently receive the back of the neck of the animal, in the mouth of which is placed the well-known "bit" of Czermak, which effectually protects the experimenter from the bite of the animal. The perforated board and bit are adapted in size to that of the animal upon which the investigation is to be made, those used for large dogs being, of course, much larger than those used for rabbits. The animals experimented upon are generally curarized, the curare being kept in concentrated solution in glycerin, diluted for use, and introduced hypodermically. In this room is also a kymographion, protected by a covering of green baize, and made in the laboratory by one of Professor Stricker's "diener," who did it in something less than a year. In addition to these are closets along the wall, for chemicals, solutions, etc., microscopes and other apparatus when not in use. The smaller room contains a similar table for microscopic work, and is generally occupied by the assistants, while the pupils work at the table in the larger room.

From this description, which may be considered as applicable to a number of laboratories which I visited, it will be seen that the word *laboratory* is properly used to indicate a work-room, or place to work in, quite consistently with the etymological and primitive meaning of the term. The supply of material appeared to be abundant, as to frogs and smaller animals; but I have known as much as ten florins (about five do lars, and really equivalent to ten dollars with us) to be paid for a large dog.

Quite an institution in the laboratory are the two "diener," or servants, one of whom is a good mechanic and makes much of the apparatus used in the laboratory; but the deliberation with which he does it is something remarkable, especially to Americans. I am sorry to be able to say nothing more favorable of "Louis," the second "diener," than that he is an adept at fastening dogs, and at omitting to do anything which may be requested of him.

Although furnished with accurate information as to the situation of the Pathological Institute, I wandered for some time among the various quadrangles and courts of the great General Hospital before I succeeded in finding the laboratory. My knock at the door was answered by a lusty "*Herein.*" Entering, I found several gentlemen in shirt-sleeves working over microscopes, one of whom responded, in very good English, to my inquiry for Prof. Stricker, to the effect that he was the person. I found him much younger, and very much less a "bear," than I had expected; apparently less than forty years of age, of medium stature, wearing no whiskers, except a moderate mustache, and dressing neatly. He treated me most courteously, and, on learning the object of my visit, very promptly effected an arrangement by which I was to work a certain number of hours daily with one of his assistants, Dr. Spina.

The microscopes used in the laboratory, and in Vienna generally, are Hartnack's, also Hartnack's lenses; and I saw no others there. The highest power used was an immersion No. 10; but this was frequently called into requisition. The great size and the reputed conveniences of our own and the English stands are not at all appreciated, and the beautiful stand of one of our best American makers, brought to Vienna by an American surgeon, was a source of considerable merriment to those who saw it, who regarded it as a sort of machine. The microscope is altogether used in the vertical position; and the precaution so much insisted upon among us, of keeping the unemployed eye open, was considered, at least by those who taught me, absurd advice, and by many had never been heard of. It may be added that the microscopes used by the assistants and students are the property of the Pathological Institute.

Having finished the subjects of blood and epithelium in the laboratory of the Brown Institution in London under the direction of Klein, we passed directly to the study of

CONNECTIVE TISSUE.—For this purpose a small portion of the mesentery of a living frog is placed upon a slide in a drop of serum or one-half per cent.

solution of chloride of sodium, and covered with a thin glass cover. Five forms of cells are met with in connective tissue.

1. The *wandering cell*, exhibiting its peculiar amœboid movement resulting in a change of shape, to which is added, also, a change of position. This connective-tissue corpuscle assumes a permanently round form on the addition of water, when it may be said to be dead. These, in some instances at least, are probably white blood-corpuscles which have migrated through the walls of blood-vessels into the connective tissue.

2. The well-known, coarsely granulated (grob-granulirt) *spindle-shaped* connective-tissue corpuscle, provided with an elliptical nucleus.

3. The *round, finely granulated* (fein-granulirt) connective-tissue cell, which exhibits no movement, or at least a very slow one, and differs only from the dead amœboid cell in its larger size. These generally have an oval nucleus, or, according to Rollett, their contents may appear to be accumulated at one point around a body resembling a nucleus; according to this observer, also, they give off radiated prolongations which often join. Between the spindle cell and the round cell are intermediate shapes.

The same study may be made in the connective tissue derived from the fresh muscle of the thigh or leg of the frog or rabbit; but the cells are less numerous.

4. In the connective tissue of the muscles of mammals, *cylindrical* (walzenförmig) cells are sometimes found, containing an elliptical nucleus.

5. Finally, *pigment-cells* are also found in connective tissue, abundantly in amphibia and fishes, but to a limited degree only in man (iris, choroid, and innermost layers of the sclerotic). These are usually provided with a central nucleus, often obscured, and also exhibit movements, which are, however, exceedingly slow in adult batrachians, but more rapid in their embryos.

Rollett, in Stricker's Histology (New Syd. Soc. translation, p. 57), describes other finely granular cells "which are for the most part more delicate and pale, and frequently exhibit fine radiating strongly refracted striæ of greenish tint. These easily overlooked, delicate, and proportionately large structures may be best distinguished by their very distinct, large, vesicular nuclei." I have had no opportunity of recognizing these cells as special forms.

The addition of very dilute acetic acid, so dilute as to be just appreciably sour to the taste, causes an increased granular appearance in these cells. A stronger solution, say .20, causes a more distinct exhibition of the nuclei, which in the case of the migratory cells are round and smaller, and frequently exceed one in number, while the nuclei of the other connective-tissue cells are *oval* in form and larger in size. The addition of still stronger acetic acid produces shrivelling in the cells, a formation of folds, and extrusion of the nucleus in the case of the wandering cells.

One or more of these cells are met in *two principal varieties* of connective tissue: 1. Trabecular tissue (Balkennetz), adenoid tissue of His, embryonal tissue. 2. Fibrillar connective tissue.

1. The *trabecular connective* tissues are generally characterized by the fact that they do not yield gelatine on boiling. They form net-works of which the trabeculæ were primarily produced by the union of radiating processes of cells. These may preserve their cellular character in retaining the nuclei of the cells, producing thus a nuclear trabecular tissue, or the trabeculæ may so acquire a fibrous constitution as to be undistinguishable from bundles of the fibrillar variety of connective tissue. This variety of connective tissue may occur in independent masses, as in the so-called mucous tissue of the umbilical cord, or it may serve as a means of support, or investment of protection, for fibrillar connective tissue, or vascular (capillary) tissue, or organs, as in the lymph-glands and similar structures, Peyerian and solitary glands, the mucous membrane of the intestines, tonsils and follicles of the tongue, the conjunctiva and its trachoma glands, and the nasal portion of the pharynx. In these latter instances the meshes are filled with the peculiar lymphoid (amœboid) cells described. They are also traversed by blood-vessels, and unite also upon the external surface of the blood-vessels to form the tunica adventitia capillaris of His.

It is this tissue which constitutes the neuroglia of Virchow, the delicate supporting connective tissue of the eye and nervous centres. It also occurs as a constituent of certain pathological new formations. This form of connective tissue is best demonstrated, according to the method of His, by carefully brushing thin sections of the hardened tissue with a camel's-hair brush, by means of which the lymphoid cells are removed, and a delicate net-work is left behind, composed of trabeculæ enclosing round or polygonal spaces: these trabeculæ are sometimes distinctly seen to be composed of nucleated cells or to exhibit nuclei, or, in consequence of age, to have lost all cellular characters.

2. *Fibrillar Connective Tissue.*—Between the trabecular connective tissue or "Balkennetz" and the fibrillar form are intermediate forms; but the great bulk of the connective tissue of the higher animals, at least, is made up of the fibrillar variety.

This—to which alone the term connective tissue was formerly applied—is transformed into gelatine on boiling, and is characterized by the well-known fibrous structure implied in the term fibrillar. The cellular elements are those already described, and can only be satisfactorily studied in the young formation of this tissue when quite fresh.

The toughness or close adhesion of many forms of this connective tissue, as in the cornea, sclerotica, tendons, fascia, and even subcutaneous tissue, is well known. It is often so great as to make it impossible to isolate the fibrillæ composing it, without the use of reagents. One of the best of these is *simple lime-water*. A piece of sclerotica or subcutaneous tissue, for example, is thrown into lime-water and allowed to remain for twenty-four hours. At the end of this time a small piece is taken out and frayed with needles. If it stubbornly resists the dissection, it is replaced in the lime-water for

another twenty-four hours, when the dissection is repeated. If necessary, the maceration may be continued even longer, when the dissection may be made with surprising facility, and beautiful preparations may be made in which the separate fibrillæ may be clearly displayed. The sclerotic and cornea of the rabbit and the subcutaneous connective tissue from the dog—which is very tough and difficult to fray out—were thus successfully manipulated.

A similar agent is baryta-water, acting more promptly than lime-water and accomplishing the same results in from four to six hours.

A third reagent, which acts similarly, though not so rapidly as the lime-water, is a solution of *bichromate of potash*, of a dark straw-yellow color. The maceration may be continued two or three days, according to the firmness of the tissue, and the solution should be renewed. The fibrillæ are thus rendered easily isolable. The use of this solution is attended by a yellow coloration of the fibrillæ, which may or may not be desirable. This solution was used successfully in the treatment of the adventitia of blood-vessels and in the case of tendons.

The rationale of these processes is not precisely known; though it is usually said that the lime-water and bichromate of potash dissolve a species of cement (Kittsubstanz) by which the fibrillæ are believed to be held together.

Very interesting are the effects of acetic acid and boiling water upon the fibrillar connective tissue. Acetic acid of almost any strength beyond .20, it is well known, removes completely the fibrillar appearance of this form of tissue, rendering it homogeneous, and increasing the width of the bundles, while the cellular element and the cord-like fibres of yellow elastic tissue are rendered more distinctly visible. On the other hand, the addition of a little weak solution of ammonia promptly restores the structural characters.

Again, a piece of subcutaneous connective tissue was boiled in water in a test-tube for five or ten minutes. There resulted the same absence of fibrillar appearance, with increased width of the bundles, and constrictions at certain points where the spirally *surrounding* fibrillæ still remain, not permitting the swelling to take place in these situations. Longer boiling dissolves or causes the disappearance of these surrounding fibres also, and if continued still longer causes a solution of the entire mass into gelatine. Tendon was also similarly treated, and with the same results. For these purposes the hot-water stage of Stricker may be used to great advantage.

The staining of connective tissue was attained by two principal staining solutions, *carmine* and *chloride of gold.*

Carmine staining was accomplished by making an ammoniacal solution of carmine, without particular regard to strength, and diluting by water. The tissue was placed in a small quantity of this, and examined from time to time, to determine the degree of staining. When the proper time of immersion for a given fragment was determined, others of the same kind and size were immersed for a corresponding period. In all instances an intensity or vividness was secured by further treating the stained tissue by a very weak solution of acetic acid, of a strength just sufficient to allow the acid to be tasted. This staining is not restricted to any one element of the tissue, but is general, the cells being more deeply tinted than the fibrillæ.

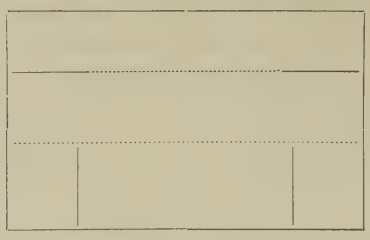
Staining connective tissue with *chloride of gold* has for its object more particularly the demonstration of the cells of the connective tissue, and was thus practised in the case of delicate connective tissue. A piece of the mesentery of a frog is carefully cut out and stretched by means of pins over a fenestra cut in cork. Thus prepared, it is placed in a one-half per cent. solution of chloride of gold for ten minutes, after which it is removed to distilled water slightly acidulated by acetic acid, where it is allowed to remain twenty-four hours, in order that the gold may be reduced and the cells stained. The preparation when taken from the acid should be of a uniformly violet color; it will also be somewhat hardened. It is then examined in glycerin. The different forms of connective-tissue corpuscles should be noted, and care should be taken not to mistake for them the nuclei of clumps of the red corpuscles of the frog, which are apt to be encountered in consequence of section of a blood-vessel.

The period of immersion cannot be positively stated: experiment must determine the exact time. Ten minutes is perhaps an average: larger preparations require longer, the more delicate a shorter time.

So far, however, as my own limited experience went, I am not disposed to attribute much utility to the gold staining of connective tissue. The cells only are stained, and that somewhat faintly, and the preparations cannot be mounted to keep any length of time, while the vividness and permanence of carmine stainings, when mounted in glycerin or slightly acid glycerin, are well known.

Making Sections of Tendon and other Tissues.—The imbedding process was always employed; the substance made use of for the purpose being white wax reduced in consistency by oil, the two being melted together. The consistency to be obtained is one approaching that of the tissue to be cut after hardening, while the quantities employed to attain it must be influenced by temperature, the season of the year, etc. The preparation is always previously hardened in alcohol or chromic acid, and in the case of tendon it is sometimes dried, when indeed it may be cut without imbedding, though the change undergone by a specimen thus treated is manifestly great. The process employed is very simple. A little box is made of moderately stiff white paper, and adapted in size to the preparation to be cut. The box is made in the following simple manner. A rectangular piece of paper is folded as indicated by the dotted lines and cut as shown by the plain lines in the diagram; this permits the corners to be turned up and about each other, so that, being pasted in this position, a neat box is formed. The preparation is then taken from the fluid in which it was immersed (the excess being allowed to evaporate, or removed by bibulous paper), and perforated towards one end by a pin, which is then thrust into the floor of the box in such a way that the preparation occupies a central

position, so that the molten matter may readily flow around it. The mixture of wax and oil is then



melted over a spirit-lamp, and allowed to cool until a slight film begins to appear at the edges. It is then poured rapidly around the preparation and allowed to cool. If it is desired that the cooling take place rapidly, it may be placed in water; but, if possible, it should be allowed to cool gradually. After the mass is cool, the paper is stripped off. We then have a rectangular prism, of convenient size to hold between the fingers. This is cut with an ordinary knife until the preparation is reached, when sections are made with a broad, flat knife mounted like a razor, which is much used in Vienna, the imbedded tissue wrapped in a towel being held in one hand and the knife in the other. No precise directions can be given as to the mode of making the sections: experience alone can teach this. It must not be omitted, however, that the knife and upper surface of the preparation should be wetted in each case with alcohol or water, according to the previous immersion. So also the section is floated off the knife in alcohol or water, according to its previous treatment. It may likewise be stated that it is not necessary to cut entirely through the imbedding substance, but that it is better to start the knife just beyond the edge of the specimen to be cut.

After the sections are made, they may be stained in chloride of gold or carmine or other staining fluid, in the manner described. Or if the tendon is a delicate one, as certain almost thread-like tendons of the frog, it may be stained before the sections are made.

(To be continued.)

ON THE EFFECTS OF THE BROMIDES IN EPILEPSY, WITH SPECIAL REFERENCE TO THE BROMIDE OF POTASSIUM.

BY M. GONZALES ECHEVERRIA, M.D.,

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(Continued from page 118.)

I HAVE observed the eruption of the skin in one hundred and twenty-one males and one hundred and sixty-two females. It displays itself in scattered pustules, and in some instances as a rash or diffuse elevation of the skin, over the chest and limbs, this being particularly noticeable in females and children. I have met with the bromide eruption at all seasons of the year; though Voisin says that it only occurs in winter. In twenty-eight males and in thirty-four females of the above cases, the eruption was of a very slight character, thus modified by the use of arsenic, which had not been employed in the other instances. I have seen the eruption crop out twenty-four hours after the giving of the bromide, but it usually appears from three to seven days after, and is ordinarily painless. It seems as though females and children were more liable to the eruption than adult males. In many instances there is instead of the pustules, and without any previous reddening or swelling, a peculiar discoloration of the skin, a brownish hue, more conspicuous on the forehead or neck; but, as just said, the eruption is oftener of a papular nature, breaking out first in the face, chest, and back, and very much resembling acne. The papulæ may break out again in a confluent form in the elbows, dorsal region of the hands, knees, or lower limbs, determining an extensive and painful subcutaneous suppuration, as I have observed in three males and five females. This complication ceases on the discontinuance of the bromide. The most extensive cutaneous eruption I have met with was in two females: one had an ulceration over the whole posterior face of the right forearm, and the other over the right knee; in both instances the eruption was painful, but subsided rapidly on suspending the bromide. The scar left by the pustule has a bluish, smooth aspect, or is sometimes of a dark-brown color. It is not permanent, though the scar of confluent pustules may persist for several months. I have never noticed the same portion of the skin to be twice affected by confluent pustules. In two males there was inflammation, or rather a painless swelling, of the parotid and maxillary glands, along with large furuncles in the same region. In another male, a large eczematous eruption, which lasted only a few days, broke out in the left side of the face and left forearm. These three last patients were epileptic insane.

I do not think that the existence of the eruption bears any relation to the effects of the bromide on epilepsy. Its occurrence is far from constant, whereas many epileptics I have attended have been relieved of their attacks, and indeed so far cured, without having ever exhibited any eruption; whilst this latter has been present in its worst form in epileptics who have remained unbenefited by the bromide. I have already referred to the association of the arseniate of potash with the bromide to avoid the occurrence of the bromide eruption. We, however, fall short of this result when arsenic has not been employed from the beginning, or if the eruption be not previously arrested on a discontinuance of the bromide, or if alkaline baths are not administered along with the two salts, in cases where the predisposition to cutaneous trouble is manifest in any high or persistent degree.

I look upon anæsthesia of the skin and mucous membranes as one of the most constant effects of the bromide of potassium. I find anæsthesia of the skin distinctly recorded in 216 cases: 86 males, 130 females. The phenomenon was general among 50 of the first and 78 of the latter, loss of sensibility being more evident in the lower limbs in the remaining cases, thus accounting for the totter-

ing gait then observed. I am satisfied that the ataxic symptoms attending the administration of large doses of bromide of potassium are mainly due to the loss of tactile sensibility. This latter has appeared to be more or less impaired in every one of the cases, but not the perception of heat, for such epileptics have at once objected to and complained of any hot application to their skin, no less alive to painful impressions. Nevertheless, in 23 males and 42 females the perception of temperature was unmistakably lost, and in three males there was, besides, complete analgesia superinduced by the bromide of potassium. One of these epileptics, admitted into this asylum in the last stage of dementia, had been taking for five weeks half an ounce of the anti-epileptic mixture, containing thirty grains of bromide of potassium, three times a day. The frequency and severity of the fits had decreased, and he became less stupid, when one morning he unconsciously and most severely burned his toes by keeping his feet over the steam-pipe of the radiator in the ward, until he was discovered and removed therefrom by one of the attendants. Furthermore, I have remarked that the insertion of a seton, or cauterization with a red-hot iron, in the back of the neck, has caused very little pain to epileptics under a regular course of treatment with the bromide, and who in the beginning were very sensitive to such operations.

Reflex reactions are lessened under the influence of the bromide. The tactile sensibility of the pharynx has been lost and deglutition impeded in every case of complete bromism, all liquids passing then through the nose or into the larynx. This, however, I repeat, has been an accident of bromism, whereas deglutition has continued unimpeded in every instance until the extreme physiological effects of the salt have been induced. The sensibility of the pharynx is, indeed, blunted or considerably diminished by the bromide, and more so in the case of children. A curious illustration of this fact was exhibited by a girl, ten years old, who had become epileptic after scarlatina, and who, while taking ninety grains of bromide daily, had a fish-bone imbedded in the right pillar of the fauces, no distress following for four days, at which time the parents became alarmed at the fetidity of her breath and salivation, which disappeared upon the removal of the fish-bone from the palate. One circumstance which deceives us very materially on examining the state of anæsthesia of the pharynx, in reference to the effects of the bromide of potassium thereon, is, whether the patient watches or not the application of the instrument or object employed to test the pharynx's feeling. Laborde has pointed out this cause of error, and I may add that the same thing operates no less actively when we inquire generally into the sensibility of the skin, for there was not one case where tactile perception did not become more acute after the patient had seen the instrument employed to ascertain his degree of sensibility.

Loss of taste has been frequently complained of in the beginning of the use of the bromide, but has not persisted, to my knowledge, in any case. A male epileptic, subject to fits attended with furious mania, was directed, upon admission into the asylum, to take thirty grains of bromide of potassium three times a day; thereupon he lost all sense of taste, and became very much distressed. He could not distinguish the taste of tobacco or salt from pepper, and his food, when chewed, conveyed to him the sensation of cotton, being entirely tasteless. Deglutition continued unimpaired, as did also the feeling of temperature, and his breath did not become foul. Tactile sensibility of the tongue and throat did not appear materially affected; titillation of the uvula would make him gag, until the taste gradually returned in the course of six days.

The sense of smell may become equally affected by the bromide of potassium, not from the hypersecretion from the Schneiderian membrane, but from the diminished sensibility of the nerve. I have observed such substances as tobacco, snuff, ammonia, etc. to excite no sneezing, and in the epileptic just cited the sense of smell also disappeared, to return long after the recovery of taste. Seven males and eleven females exhibited loss of smell upon the use of the bromide of potassium. It is not uncommon to remark in inveterate epileptics an injection of the conjunctiva, a real conjunctivitis with thick discharge from the palpebral glands, similar to that frequently accompanying other forms of insanity or noticed where the unsoundness of mind has a larvated and undefined character. The bromide of potassium may originate, not seldom, a similar congestion of the conjunctiva, with muco-purulent discharge from the eyelids, the eye becoming very red and sensitive to light. This effect is more particularly met with among epileptics in a state of general paralysis, or melancholia, as well as among those subject to frequent meningitic congestion, in all of whom the bromide may arrest the repetition of fits, but seems to be without any beneficial influence over the progressive mental derangement.

Of the rarer phenomena attending the use of the bromide of potassium in epilepsy, I may say that diarrhœa has been recorded in five of the epileptics here considered, three adult females and two male children. The phenomenon did not persist, and passed away after a few weeks, without any special treatment. In one female the salt in drachm doses would induce nausea and vomiting, and in an epileptic soldier, at the United States Central Park Hospital, fifteen or twenty grains of bromide of potassium would always produce vomiting. He had become epileptic from the effects of a gunshot wound of the skull. Another male epileptic, insane, while under treatment, was twice seized with icterus, without any positive indication, however, that it was caused by the bromide. He died afterwards from meningitis, and two large biliary calculi were found in the gall-bladder.

Fourteen epileptics—five males and nine females—complained of diplopia while under the use of the bromide, but among a larger number there was permanent strabismus wherever the full physiological effects of the bromide were induced. I have examined with the ophthalmoscope, on different occasions, the retina of epileptics in a state of bro-

mism, and I have so far been able to make out a pretty uniform change in most of the cases. In two females there was a brighter redness and pulsation of the veins upon the disk, which was not noticed before or after the supervention of bromism. A hazy condition of the disk is recorded in five cases,—three males and two females; whereas the memoranda of thirty-eight more cases—eleven males and twenty-seven females—show that the retina was in a state of congestion with an increased reddish tint of the disk, continuing along with the bromism and for one or two days after. These observations agree with those of Nicol and Mossop, who have concluded, from their experiments on the action of certain neurotics on the cerebral circulation, that bromide of potassium produces congestion of the brain (*British and Foreign Medico-Chirurgical Review*, July, 1872). I cannot, consequently, assent to Laborde's statement,—that no alteration takes place in the optic nerve of bromized individuals (*Archives de Physiologie*, May, 1868).

Irritability of temper has frequently attended the administration of the bromide of potassium, as a transient phenomenon in the first few days. In some instances of epilepsy without insanity, the bromide has superinduced mania. In one female, as low a dose as ten grains of the bromide would set her wild, with hallucinations of hearing, and suicidal mania: she afterwards could take, however, twenty grains of the salt associated with narcotics, thrice daily, favorably and without the above symptoms. Any larger quantity than thirty grains would also produce suicidal mania in two other females. Another female, again, would become maniacal on twenty grains of bromide repeatedly taken, while two of her companions were rendered, by the same amount, one melancholic, with delusions of hearing, and the other melancholic and drowsy. Among males, homicidal mania has occurred three times, eight have become melancholic, and several others have shown hallucinations of sight or hearing, upon exhibition of large doses—from thirty to forty grains—of bromide of potassium. One young man, subject to nocturnal attacks, has remained entirely free from them and from the mental excitement that they occasioned, as long as he took one drachm of bromide of potassium daily; he nevertheless was all the time melancholic, and ceased to be so on stopping the bromide, when the nocturnal attacks again recurred. I have noticed in two male and three female epileptics, not insane, under the continued daily use of from sixty to ninety grains of bromide of potassium, that without premonitory mental or physical derangement, they became amnesic. Two of the females, particularly, were quite aphasic, and not only did they forget certain words, but they also became unable to utter certain others. None of these epileptics had aphasia in relation to their fits; nay, these were checked when the aphasia was exhibited. The discontinuance of the bromide was directly followed by that of the aphasia, which returned again when treatment was resumed. Voisin mentions a similar instance of aphasia in a male epileptic subject to the continued influence of the bromide, and Professor Clarke, of Harvard University, in his recent valuable monograph on the bromide of potassium, reports the case of a lady, suffering from chronic ovarian disease, to whom he gave a continued daily dose of forty grains of bromide of potassium. After she had taken it for two weeks, she began to exchange two words for each other; and the peculiarity disappeared shortly after she discontinued the use of the bromide.

I have little to add to describe the peculiar phenomena of bromism. They are: congestion with swelling of the fauces and of the tongue, redness of the conjunctivæ, cheeks, and nose, dilatation of the pupils, congestion of the retina, dimness of sight, diplopia, thickness of speech, slowness of the pulse and respiration, decreased temperature of the skin, increased secretion of the salivary glands and kidneys; in some instances hallucinations of sight or hearing, and mania or melancholia, have shown themselves, the former of a suicidal nature. Deafness may occur in some cases, upon the swelling of the fauces extending to the Eustachian tube, but it readily disappears on discontinuance of the bromide. The anæsthesia of the skin and mucous membranes becomes very conspicuous, as also a tottering gait, with inability for steady exertion of any kind (writing, buttoning up the clothes, etc.), and, above all, an overwhelming drowsiness. I have further observed, in six males and nine females, a loss of power over the sphincters, with an unconscious passage of urine and excrement; two of the males, and four of the females, were children. The appetite to eat, and to smoke or chew tobacco, has never been completely lost, even while the patients were under large doses of bromide of potassium.

I cannot say that bromide of potassium has been observed to exert any special uniform effect on the derangement of menstruation attending epilepsy with the females under my care.

(To be concluded.)

A New Mode of Writing Prescriptions.—The *Clinic* contains an article from M. J. P. Bonsieur, proposing what he calls the "one-dose prescription plan;" namely, that the physician should simply put down on paper the dose to be given, thus:

℞ Ferri redacti, gr. j,
Quin. sulph., gr. ss,
Ext. gentianæ, gr. j. } × 12.

The apothecary will from this make up, of course, twelve doses of the prescribed quantities of each drug, in pill, powder, syrup, or whatever form the physician may write below. M. Bonsieur seems to think the menstruum might be left altogether to the apothecary; but it would be far better for the prescriber to indicate this.

The plan presents some great advantages, as, for example, in economy, but does not give any more security than the one now generally followed, since an absent-minded physician would be just as apt to write "Morph. sulph. gr. x" in place of "gr. $\frac{1}{10}$," as to write "℈j" in place of "gr. j." Constant care and attention to the matter in hand, adequate knowledge being of course presupposed, can alone prevent dangerous mistakes either in the writing of prescriptions or in the compounding of the drugs called for.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, NOVEMBER 30, 1872.

EDITORIAL.

PROF. TYNDALL'S LECTURES.

THE medical as well as the general public have looked forward with much eagerness, ever since the first announcement of Prof. Tyndall's intention to visit this country, to the pleasure and instruction to be derived from his lectures. They have not been disappointed. His course here has been brilliantly successful, the hall having been crowded each evening with an appreciative and intelligent audience, who frequently applauded, as well they might, his admirable expositions of scientific matters.

His lectures remind us strongly of the works from his pen, which have made his name so familiar to the reading world on this side of the Atlantic. Clear and forcible in language, they are illustrated by striking and carefully elaborated experiments, which add tenfold to their interest. We may say, further, that Prof. Tyndall has made a not less agreeable impression upon those who have met him socially than upon those who have heard him in public. His visit to this city will long be remembered with pleasure.

DR. COHEN'S MÜTTER LECTURES.

THESE lectures are now in process of delivery, on Tuesday and Thursday evenings of each week, at the hall of the College of Physicians, and are well attended. Dr. Cohen has taken for his subject the surgery of the nares, larynx, and trachea, to which he has for a number of years devoted himself, and with which his summer lectures at the Jefferson Medical College, and the work he has recently published, have already demonstrated his familiarity. It is by courses of this kind that the legitimate objects of such bequests as that of Dr. Mütter will be most fully accomplished; and we trust the profession in this city will not be slow to manifest their appreciation of the opportunities thus afforded them.

ANOTHER NEW JOURNAL.

WITH the opening of the new year, a fresh enterprise will be undertaken by Messrs. Lippincott & Co., in the shape of a monthly journal, to be called the "Archives of Scientific and Practical Medicine." It is to be under the editorship of Dr. Brown-Séquard and Dr. E. C. Seguin,—names which carry an assurance of brilliant ability, and which will, we think, bespeak the favor and support of the profession not only in this country but abroad.

Each number will consist of about one hundred closely-printed octavo pages, mainly made up of original communications; the details of the plan, price of subscription, etc., will be found in our advertising columns.

LEADING ARTICLES.

ON THE TEACHINGS OF DR. J. MARION SIMS REGARDING THE CAUSE AND TREATMENT OF STERILITY.

BY DR. VON SCANZONI.

(Beiträge z. Geburtskunde u. Gynaekologie. Scanzoni, vol. vii. p. 109.)

THE fundamental idea of the modern surgical treatment of sterility by operations designed either to dilate or to straighten out the cervical canal, is that there always exists a mechanical obstacle to the entrance of the spermatozoon. Scanzoni earnestly protests against the acceptance of a theory based on careless observation of phenomena, and which necessitates the frequent performance of an operation which is in itself dangerous, and in some cases fatal. Opposed to the new school of gynæcologists, who regard the publication of Dr. Marion Sims's book on uterine surgery as the dawning of a new era in this hitherto neglected branch, he maintains that the want of careful histories of cases, and a certain or rather an *un*certain looseness of expression with regard to actual results, so decidedly deprive it of scientific value that its review becomes a difficult and arduous task. So far from regarding a mechanical obstacle to the entrance of the seminal fluid into the uterus as the sole cause of

sterility, he brings forward and urges the importance of the following morbid conditions, which may be, and often are, the causes which prevent conception,—viz., any functional disease of the ovary or testicle, which results in the production of a vitiated ovum or spermatozoon, or the occurrence of any one of the numerous pathological conditions which may prevent the exit of the ovum from the ovary, its reception by the Fallopian tube, and its passage into the uterus. We are, for the most part, utterly unable to diagnose the existence of any of the abnormal states which would produce such a result; and yet the possibility of conception depends on the physiological and harmonious sequence in the functional activity of these organs.

In order to prove that conception may occur in spite of the most extreme displacement, several cases are given in detail, where the introduction of the sound was rendered absolutely impossible, owing to the marked flexions of the uterus, or, as was the case in one instance, to the existence of an inguinal hernia of that organ; and yet, in all the histories given, conception repeatedly took place. While Scanzoni admits the general truth of Marion Sims's statement that the pain of dysmenorrhœa depends on a mechanical obstacle to the passage of blood from the cavity of the uterus, he still maintains that *all* cases cannot be explained in this way, and states that some of the most severe cases of uterine colic he has ever seen occurred before one drop of hemorrhage had taken place in the uterus, as he has repeatedly proved by the introduction of a sound, while the pain sometimes continued after the flow had been freely established, but not sufficiently so to take away the pressure from the over-excited nerves. So too the most intense uterine colic may be excited by the application of leeches to the cervix, even in cases where care has been taken to guard against the passage of one of them into the uterus,—an accident which some authors have availed themselves of to explain the severity of the pain.

Scanzoni then goes on to show in detail that in many cases it is simply impossible to diagnose, either by the fingers, sound, speculum, or by the aid of the sponge tent, such a contraction of the cervical canal as to justify us in regarding sterility as its *necessary* consequence, whether this contraction be due to a congenital or an acquired constriction of the os externum; the infiltration and swelling of the mucous membrane following a chronic catarrh of the organ, and a consequent development of the folds of the arbor vitæ; the presence of enlarged follicles with broad bases of attachment (the ovula Nabothi); new formations grouped together under the head of mucous polypi, which for the most part originate in these same follicles; more or less extensive fungous excrescences caused by papillary growths; spastic contraction of the os internum; the various and often-occurring forms of flexion; diffuse hyperplastic growths affecting either the entire cervix or only certain portions of it; myomatous and fibroid tumors having their seat either in or near the cervix; or to intra-mural or pedunculated growths attached to the body of the organ. In all of these conditions neither the sound nor our other aids to diagnosis enable us to exclude pregnancy, as the histories of numerous cases given by Scanzoni show.

The author deplores the incompleteness of the statistical tables in Sims's book. It is true that it is stated that the operation for the Bilateral Incision has been performed five hundred times, but in only six of these cases is it stated that the wished-for result was attained, viz., that the woman conceived. Four other cases in which conception followed the amputation of the cervix must be added to these. While Scanzoni does not doubt that Sims has other more extended statistical statements which place the operation in a more favorable light, still he says that these are the results from which we are asked to accept the operation. These ten cases are carefully analyzed and reviewed by Scanzoni, who finds that seven of the women had been pregnant before the operation,—in other words, that we have to do here with cases of *acquired* sterility, in which the prognosis is unquestionably more favorable. The fact that the operation is not without danger is then insisted upon by Scanzoni, and the members of the profession are exhorted to review calmly the evidence on which this operation rests,—the value of which cannot be denied in a few well-selected cases,—before they follow blindly the so-called new school of uterine surgery.

CORRESPONDENCE.

ANÆSTHESIA—DR. HORACE WELLS.

To the Editor of the Philadelphia Medical Times:

In a recent number of the *Times*, mention was made of a project for raising a Testimonial Fund for the benefit of the family of the late Dr. Horace Wells, and now the circular for that purpose, signed, I am surprised to see, by several of the most eminent medical men of this city, is lying before me. If, as individuals, they are desirous of testifying in this manner their approval of Dr. Wells's endeavors to discover the means of anæsthesia, nobody could reasonably object to the pro-

ceeding. If, however, this movement springs from the belief that he did actually make the discovery, then it becomes a fair subject of criticism. On this point we are left in no doubt. In the circular it is said, he was "a benefactor to the world;" "that he conferred upon it the greatest physical boon ever yet bestowed by man upon his fellows;" that he was the means of saving "tens of thousands of lives, as well as an untold amount of mental and physical anguish." Not so have we read the history of this matter, and, in the face of well-established facts, such representations can excite only a feeling of surprise and wonder.

The historical record is remarkably clear and explicit. It gives no uncertain meaning. In the autumn of 1846, several surgical operations were performed in the Massachusetts General Hospital, in Boston, without causing pain, under the influence of sulphuric ether, and thus were demonstrated, beyond a reasonable doubt, the practicability and complete success of this method of producing anæsthesia for such a purpose. From that time this great achievement became, not a matter of guessing, or of speculative belief, but a fixed fact, a veritable reality. During the twenty-five years or more that have since elapsed, the great majority of the profession, as well as the unprofessional public, have believed, even from the first, that the honor of conferring this signal blessing on mankind is due, wholly or partly, to either Dr. Jackson or Dr. Morton. Why, then, are we asked, at this late day, to reverse this judgment, and bestow the honor on one who failed to realize the idea which he and others had entertained, of preventing pain in severe surgical operations by some thoroughly reliable means? Dr. Wells ascertained, as Sir Humphry Davy had before him, that the inhalation of nitrous oxide renders a person insensible to pain under a slight surgical operation. That was the whole extent of his achievement. How far short it is of the end proposed and actually reached by the Boston gentlemen, would seem to be obvious enough without any danger of mistake. Had the art of producing anæsthesia been left just where Dr. Wells left it when they came upon the scene, nobody can suppose that we should now be performing severe operations without pain. And yet we know even better than he what nitrous oxide can do and what it cannot do in regard to anæsthesia. And now we are asked to award to him the honor of a discovery which required another discovery to make it of any use!

At that same period painless surgical operations were performed under the influence of animal magnetism; and if there is any honor in discovering an anæsthetic of little or no practical use, then surely Dr. Elliotson and Dr. Esdaile are as much entitled to it as Dr. Horace Wells. The gentlemen moving in this matter forget that it makes all the difference in the world whether a great scientific discovery is only conceived and sought for and feebly discerned, or abundantly demonstrated and made available for untold good to coming generations of men.

Some of the more ardent friends of Dr. Wells contend that he discovered the anæsthetic property of sulphuric ether, and thus shut off the claim of Jackson and Morton, founded on the superior powers of that substance. The statement finds but slender support in his own account of the matter. In the pamphlet put out by him in 1847, he says that a "surgical operation" was performed some two or three years before, on a person under the influence of ether. What the operation was, or what was the effect of the ether exactly, we are not told. Indeed, not a single circumstance connected with this transaction is mentioned, beyond the solitary fact that a Dr. Marcey was present. The experiment was far from being satisfactory, for he concluded thenceforth to abandon the use of ether and stick to nitrous oxide.

It seems that Wells was informed by Morton himself respecting the operations at the hospital in Boston; and what does he say in reply? Does he use the opportunity to set forth his own pretensions and insist upon the recognition of his rights, as he most assuredly would if he had done what his friends now claim for him? It is hardly conceivable that any qualm of modesty or delicacy of feeling would have then shut his mouth; and, in fact, on the spur of the moment he acted honestly and naturally. He says to Morton, "If the operation of administering the gas is not attended with too much trouble, and will produce the effect you state, it will undoubtedly be a fortune to you, provided it is rightly managed;" and that is about all he does say.

It is not strange that Hartford people, zealous for the honor and glory of their town, should be disposed to magnify the achievements of their townsman; but when men supposed to be unbiased by any consideration except the love of truth, and accustomed by the nature of their studies to sift and to weigh conflicting evidence, can find in the historical record of the rise, progress, and consummation of the discovery of the means of anæsthesia the slightest support of his claims, then, certainly, we wonder greatly and are perplexed.

JUSTICE.

OBITUARY.

IF we take a retrospective glance at the losses sustained in our profession, here and elsewhere, during the few months just passed, we find the names of several who were but yesterday the representatives of its intelligent, earnest, and hard-working laborers, mingled with those of others whose day of usefulness forms part of the history of a preceding generation. Among the latter we may particularly mention the name of P. C. A. LOUIS, the distinguished French physician and writer, who died in September last, at the advanced age of eighty-five. The Hôpital Charité, Hôtel-Dieu, and Hôpital Pitié were the fields in which his remarkable studies in diagnosis and pathology found fullest scope for their elaboration. It has been said of him that both in his public and private practice his skill in diagnosis was attested so often and so signally by pathological disclosure as to elevate the physician's art into something like the certainty of an exact science. As a writer, he is especially memorable for his re-

searches on Phthisis, on the Yellow Fever at Gibraltar, and on Typhoid Fever, more particularly as regards its differential diagnosis.

FREDERICK C. SKEY, whose death at the age of seventy-two was announced a few weeks since, was an able English surgeon and a popular lecturer. His early professional life was associated with that of the celebrated Abernethy, under whom he was Demonstrator of Anatomy at St. Bartholomew's Hospital. Difficulties which arose in this school upon the death of that surgeon led to the establishment of a formidable organization, embracing the familiar names of Pereira, Hope, R. B. Todd, Marshall Hall, Kiernan, and the subject of our notice, in the successful Aldersgate School of Medicine. Besides occupying other honorable public positions, he was Professor of Human Anatomy and Surgery, and afterwards President of the Royal College of Surgeons; and, in addition to treatises on venereal diseases, stone in the bladder, etc., he published an excellent work on Operative Surgery, which was reprinted in this country.

ALFRED POLAND, Surgeon to Guy's Hospital, also recently died, after a useful and honorable career as a lecturer and practitioner, in which he devoted much attention to ophthalmic surgery, as well as to the general domain of surgical art. He is better known to American readers from the publication of his prize essays on "The Nerves of the Orbit in the Mammalia and in Man," "Injuries and Wounds of the Abdomen," and "Gunshot Wounds and their Treatment;" he was also a contributor to "Guy's Hospital Reports," which he edited, and to Holmes's "System of Surgery."

Our local necrological record interests us even more profoundly. Of the older physicians who have quite recently passed away from their spheres of usefulness we may briefly refer to the names of Drs. Bell, Mason, and Wistar. Dr. JOHN BELL, who died in August, at the age of seventy-six, was a native of Ireland. He was at different periods a lecturer in the Philadelphia Medical Institute and the Medical College of Ohio; and his controversial candidacy for the position of Professor in the University of Pennsylvania, some twenty-five years since, will be remembered by many of the profession. He was a voluminous contributor to various medical journals, as well as the author of a number of works on "Baths and Mineral Waters," "Health and Beauty," "Physical and Moral Management of Infancy," "Regimen and Longevity," etc. He edited the lectures of Stokes on the "Practice of Physic," to which he made numerous and valuable additions; and the conjoint work was, probably on account of the amount of material thus contributed, familiarly known as "Bell and Stokes's Practice." He edited for a number of years, now nearly a third of a century since, the "Bulletin of Medical Science" and the "Eclectic Journal of Medicine," and published in connection with them a variety of excellent works, from the pens of distinguished authors of Great Britain especially.

Drs. JOHN KEMBLE MASON and MIFFLIN WISTAR, the latter the son of the celebrated Professor Caspar Wistar, were valued for their private and social virtues, for which they will be gratefully remembered, rather than for the more public appreciation which follows others in the arena of authorship or the lecture-room.

Dr. AUGUSTIN H. FISH, who died in August, was about forty years of age, a native of Trenton, New Jersey, and studied medicine in the office of Professor George B. Wood. He devoted himself assiduously to the labors of an arduous practice, with a zeal and energy that doubtless told with fatal effect on so slight a physical organization. As a medical practitioner he thoroughly enjoyed the confidence and devotion of his patients, to whom, as to the large circle of his friends, he was endeared by his remarkable integrity, manliness, sterling worth, and high professional morality. When in the vigor of health, he was one of the leading moving spirits of the Philadelphia County Medical Society, and also of the State Medical Society, of which he was for several years the treasurer. Few pass away whose blameless records leave behind so precious memories.

The more recent death of Dr. GEORGE PEPPER has been fully alluded to elsewhere. We may also briefly refer to the loss sustained by the Philadelphia College of Pharmacy in the decease of Professor EDWARD PARRISH, the author of a work on Practical Pharmacy, the popularity of which was attested by the fact that several editions of it were published. The circumstances of his death while acting as a Commissioner to the Indians are generally known. His eminent usefulness as an instructor and his excellent qualities as a man have been the theme of general admiration and appreciation.

BOOKS AND PAMPHLETS RECEIVED.

The Microscope and Microscopical Technology; a Textbook for Physicians and Students. By Dr. Heinrich Frey, Professor of Medicine in Zurich, Switzerland. Translated from the Fourth and Last German Edition, and edited, by George R. Cutter, M.D. 8vo, pp. 658. New York, William Wood & Co., 1872.

The Pathology, Diagnosis, and Treatment of the Diseases of Women, including the Diagnosis of Pregnancy. By Graily Hewitt, M.D. Lond., F.R.C.P., etc. etc. Second American, from the Third London Edition. 8vo, pp. 751. Philadelphia, Lindsay & Blakiston, 1872.

Proceedings of the Pathological Society of Philadelphia. Vol. III. 8vo, pp. 218. Collins, Printer, 1872.

Valedictory Address to the Graduating Class of Jefferson Medical College, at the Forty-seventh Annual Commencement, March 9, 1872. 8vo, pp. 23. Philadelphia, P. Madeira, 1872.

Transactions of the North Carolina State Medical Society for 1872.

GLEANINGS FROM OUR EXCHANGES.

EXCITABILITY OF THE MUSCLES IN CASES OF APPARENT DEATH (M. Rosenthal: *Wiener Med. Presse*, 1872, Nos. 18 and 19; quoted from a review by Bernhardt in the *Central-Blatt für Med. Wiss.*, xxxiii., 1872).—Rosenthal has found that the post-mortem electrical excitability disappears sooner after chronic diseases than after acute maladies, and that this excitability is retained longer in the well-nourished cadaver than in the emaciated. The duration of the excitability varies between one and a half and three hours. Immediately after death no changes in the excitability can be detected, but in the course of one or one and a half hours the direct excitability of the muscles of the face and extremities lessens in the centrifugal direction, while the indirect excitability has already decreased. At this point the temperature in the axilla stood at 35.2° C. Among the facial muscles only the orbicularis palpebrarum and levator alæ nasi et labii superioris reacted under the direct irritation, two hours after death.

By the aid of acupuncture the muscles acted at this trial. The same was true when a galvanic irritation was applied.

Although the muscles of the lower extremities may cease to react, two hours after death, it is possible to produce a powerful reaction in some of the muscles of the

arm, viz., in the abductor pollicis longus and in the extensor carpi ulnaris.

Two and a half hours post mortem, even the orbicularis palpebrarum, the abductor pollicis, and the flexor digitorum respond but tardily to the most powerful excitation, and after three hours even electro-puncture with faradic or very strong constant streams is unable to produce any contraction whatever. The temperature of the rectum at this time was still 32° C., and the joints showed no signs of rigidity.

On amputated limbs Bernhardt found that faradomuscular contractility ceased at the expiration of one and a half to two hours post mortem.

In the case of an hysterical woman who had apparently been dead forty-four hours, and was already prepared for her burial, and in whose case the author diagnosed only apparent death by the presence of excitability in all the muscles, we have an illustration that in cases of suspected "apparent death" our most trustworthy means of diagnosis lies in the condition of the excitability of the nerves and muscles.

Experiments upon animals agree fully with the facts already related in regard to man.

Rabies Canina in Ancient Times (K. F. H. Marx: *Wiener Mediz. Presse*, No. 34, 1872).—In the seventh volume of the Transactions of the Scientific Society of Göttingen, Marx has contributed an exhaustive treatise on "hydrophobia among the ancients," and deduces some practical conclusions for our guidance in modern times. Down to the present time none of the internal remedies have availed in hydrophobia, so that the only anchor of hope is external treatment. For this purpose the best application consists of caustic potash.

Much has been written on the subject of hydrophobia, but most of it is valueless. The author thinks it belongs to the province of psychical medicine. Centuries ago the question was raised, "Does the disease rank as a physical malady or an affection of the mind?" and that remains still the great question.

The chief point to be decided is, whether madness is a *necessary* consequence of the bite of a rabid dog, or only an accident of the morbidly excited imagination and confused reason, induced by the vulgar impression that madness must follow the bite, or by the anxiety of friends and the personal fear of death.

Children attacked by this disease, and unacquainted with the results of the injury, escape spasms and madness.

Furthermore, many adults bitten by a mad dog escape the disease altogether.

The author closes his exhaustive treatise with the following words:

"If we are able, as in olden times, and in the case of children, to instruct or induce men to be perfectly quiet after they are bitten by a rabid dog, not to tremble or be frightened, but to banish anxiety, to control their imagination, and with patience and hope to look forward to recovery, and also to persuade the well to remain with the unfortunate one and not to run away, but to cheer him in the hour of trial, then the means may have been discovered by which the effects of the accident are to be banished and the poison in the wound neutralized."

Dr. G. M. Humphry, of Cambridge, in a clinical lecture published in the *Lancet*, says, "Whether there is much pain or little, whether the patient sleeps or does not sleep, I refrain from giving opium or any other sedative. Pain, even severe and long continued, though hard to bear, does not seem to do the body much harm. I have often been surprised how little wear and damage it does,—not so much, I think, as the sedative which is given for its relief; and the exhaustion of a sleepless, restless night or period is usually followed by sleep, which is more likely to occur naturally at an early period if sedatives have not been used. Under ordinary circumstances, a restless night is less damaging than a night of sleep induced by a sedative. The patient commonly wakes from the latter paler, weaker, lower, more enervated, and less able to bear pain. I have long had this conviction; indeed, throughout life I have acted upon it. It may be regarded as a prejudice; but I think the patients recover better and quicker, and are less liable to pyæmia, erysipelas, and other unfavorable sequelæ of operations when thus treated. These, at any rate, we rarely see in Addenbrooke's Hospital; and our immunity from them is, I think, partly due to the practice of non-interference after operations so generally followed in this hospital. You will understand that I make a distinction between the use of opium as a remedy for disease and as a means of relieving pain after operations. In the former case it is a very valuable medicine under many circumstances,—one of the most valuable we possess. But in the latter case there is no disease; the pain is merely a natural consequence of the physical injury which has been sustained, or of the local changes which are taking place as a consequence of the injury. The condition will generally subside after a short time; and it is much better to allow it to do so, unless there is some special reason for interference."

An Invasion of Wood-Lice (Rudolph Virchow: *Virchow's Archiv*, vol. 54, parts 1, 2, 1871).—Some time ago the medical faculty of Berlin received from the curate in Parstein, Prussia, a large number of small insects, with a request for an explanation of their nature. The curate stated, in an accompanying letter, that during repairs to an old hotel near the house of one of his parishioners, the home of the latter had been invaded by myriads of insects of an unknown nature.

They had filled every crevice and covered all the clothing and persons of the inmates of the house of the afflicted man, and had defied all attempts to extirpate them.

They had so annoyed the owner of the invaded house that his health had materially failed.

Dr. Gerstäcker, to whom Virchow had submitted the specimens, pronounced them to be small orthoptera, of the family of wood-lice known as psocina, and were indeed the Clothilla inquilina of Heyden. Gerstäcker further remarked that such an invasion of the dwellings of man by these insects had never been reported, and that they were closely allied to the well-known book- or paper-louse, the Troctes pulsatorius, L. (Gerstäcker und Carus, Zoologie, ii. S. 58).

The event reminds us strongly of the invasions of Leptus autumnalis, many of which are on record.

From the information contained in the letter which accompanied the insects, it was impossible to make out the nature of the bodily annoyance experienced by the unfortunate and tormented housekeeper: nevertheless, the case is worthy the attention of physicians.

Cold Affusion.—The first meeting of the Clinical Society of London (Oct. 11) was signalized by an exceedingly important discussion on the treatment of high temperature by cold affusion. Dr. Southey read an account of a case where a patient, the subject of rheumatism, became delirious with a moderately high temperature. Cold water was used, and the temperature reduced, whereupon the delirium abated and the patient got quiet sleep; but the temperature went up again, and the delirium returned. Again it was reduced with favorable results; but, though this was repeated frequently, the patient ultimately died quite worn out. In a case of Dr. Greenhow's, a somewhat similar history was recorded. In this, too, a fatal course was the result. The question accordingly arises, In what cases should

cold be used to reduce temperature? Dr. Wilson Fox, whose experience is great, distinctly lays down the rule that the cold-water bath should only be used when the bodily heat rises to a great height and itself threatens a fatal termination. This temperature he put at 106.5° or even 107° Fahr. The President, Sir W. Gull, mentioned a case in which the temperature was 107.5°, and in which two immersions cured the disease. In Dr. Southey's case there were bronchial complications, and there was an uneasy feeling that they were due to the cold. Dr. W. Fox, however, said that such complications happened quite as readily with high temperatures where no cold was used as with cold baths. There was an idea expressed that very large doses of quinine might be found to act as a substitute for cold water in reducing bodily heat.

THE HOT-SAND BATH.—A correspondent of the *Medical Times and Gazette* says, "Fresh from the enjoyment of a delicious therapeutical novelty, and being, as I believe, the *corpus vile* on whom the first experiment has been made in London, I beg to call the attention of my professional brethren to the hot-sand bath which has been established by Dr. Conradi at 22, Aberdeen-place, Maida-hill.

"The patient is introduced into a warm, comfortable room, in which is a bath, fenced round with curtains, filled with sand heated to about 100° to 120°. In this a longitudinal groove (I will not say grave) is scooped to receive the patient, who is wrapped in a sheet, and so protected from contact with the sand. There is a comfortable pillow for the head.

"Then the bath operator gradually covers up feet, legs, arms, and trunk with the warm sand. A bucket of hotter and one of cooler sand are at hand, so that the temperature can be adjusted with the greatest nicety. The feeling of warmth is very agreeable, and the weight of the sand is just enough to cause a pleasant sense of compression and support. After an hour's delightful repose, the patient rises, is refreshed by a sluicing with hot water, and goes away refreshed.

"The effect is very different from that of hot water, and still more from that of hot air or steam. There was absolutely no commotion of the heart, nor any of the grilling effect on the windpipe which I have experienced in Turkish baths. Altogether, it seems a good thing when we want to produce measured perspiration and relieve congestion of the internal organs."

ETHER VERSUS CHLOROFORM.—We find the following in the *Clinic* (Chicago) of November 2, quoted from the *British Medical Journal* of October 12: "If the force of statistics be of any value, ether, beyond question, is the agent which presents the most powerful claims and must obtain our confidence as the safest anæsthetic. The reports at the Medical Society of Virginia during this session are conclusive: by combining American and British statistics, the result is found to be as follows:

Agent employed.	Deaths.	Inhalations.
Ether	4 to	92,815, or 1 in 23,204
Chloroform	53 to	152,260, or 1 in 2,873
Mixture of Chloroform and Ether	2 to	11,176, or 1 in 5,588
Bichloride of Methylene	2 to	10,000, or 1 in 5,000

"It is thus proved statistically that chloroform is eight times as dangerous as ether, twice as dangerous as a mixture of chloroform and ether, and, as far as experience goes, it is more dangerous than bichloride of methylene; in fact, chloroform is the most dangerous of all the anæsthetic agents in use. If statistics are of any value, these should be startling and impressive ones. The report of the London Chloroform Committee states the result of careful investigation, that 'ether is less dangerous than chloroform;' and that 'with every care and the most exact dilution of the chloroform vapor, the state of insensibility may pass in a few moments into one of imminent death;' and the latest surgical work from America advocates ether as the most suitable anæsthetic."

REMOVAL OF A STONE FROM THE KIDNEY—DEATH.—Dr. Dawson presented to the Academy of Medicine in Chicago, October 26, a phosphatic renal calculus seven-eighths of an inch in length, half an inch in breadth, and weighing 20¾ grains, removed by him from the left kidney of a woman fifty years of age. An abscess had formed, and was three times exhausted of pus by the aspirator, within the five days preceding the operation. This was done under chloroform, an incision being made along the edge of the erector spinæ muscle, from the eleventh rib to the crest of the ilium, and a dissection made to the depth of 2¾ inches, when the cavity of a sac, composed of the degenerated kidney substance, was entered. After the extraction of the stone, a drainage-tube was inserted, and the wound closed.

For four days the patient did well; pyæmia then set in, and death ensued in less than twenty-four hours.

RUPTURE OF THE UTERUS; SUCCESSFUL GASTROTOMY.—In the *Medical Times and Gazette* of September 21 a case is quoted from the *Bulletin de Thérapeutique* in which, December 18, 1871, four days after rupture of the uterus with escape of the fœtus and annexes into the abdominal cavity, gastrotomy was performed by Dr. Fourrier, of Compiègne. "The left iliac fossa was found to be lined with a blackish membrane in shreds, which was afterwards determined to be the peritoneum in a state of gangrene." No hemorrhage ensued; the case went on well, with some fluctuations, for about four weeks, when enteritis, and what was at first feared to be purulent infection, set in. Quinine was given in large doses with good effect. By February 19, 1872, the patient was considered quite well, and in May the menses reappeared.

The woman was seven or eight months gone in her pregnancy when the rupture occurred.

A WRITER in the *Australian Medical Gazette* advocates the inhalation of chloroform by pouring about thirty drops of the article on a handkerchief, breathing it in for a few seconds gently, and then as forcibly as possible.

He thinks this method perfectly safe,—which remains to be proved, as he adduces only four cases, though he claims to have had others in which it had been used by him. [It seems to us much like Simpson's plan of pouring the chloroform, drop by drop, on a single layer of thin stuff placed over the mouth; and a friend assures us that he has seen death occur when this was used.—ED. P. M. T.]

MISCELLANY.

A CORRESPONDENT sends us the following:

"'NOSE MACHINE.—This is a contrivance which, applied to the nose for an hour daily, so directs the soft cartilage of which the member consists, that an ill-formed nose is quickly shaped to perfection. Any one can use them, and without pain. Price 10s 6d, sent carriage free.—ALEX. ROSS, 248 High Holborn, London. Pamphlet sent for two stamps.'

"The above advertisement appears in the London *Spectator* of a recent date. We hasten to give it circulation. We know of people whose noses have been to

them sources of life-long torment,—noses retroussé to such a degree that to follow them, as the wayside proverb directs, were spiritually wise; pug-noses deftly buttoned into a breadth of face,—noses of innominable form, flabby, and elusive of the handkerchief; Thackerayan noses, more amazing for what they lack than for what they have,—making the profile like that of the faces we used to bite out of gingerbread when we were boys; and, lastly, the noble Eastern nose, a tower of sadness to him whom, having wandered from his fathers' ways, the signs of race discomfort. Good news to one and all, or to such, at least, as begin early to train their noses in the way they should go, and whose cartilages are of a submissive gelatine. For the first time we are led to reflect as to how much of nose-character is bone, and how much is jelly (fair subject for a prize essay); for, as all great generals have had great noses, there may be, too, a nose in its intimate essence professorial, which, obtainable by aid of art, may bring a man to this crown of medical glory ere yet his beard be gray.

"Also, in the *Guardian*, a well-known high-church paper, we find a gentleman who advertises for second-hand sets of artificial teeth. What does he do with them?"

Suicides in France in 1870 (*Medical Times and Gazette*, August 31, 1872).—The French *Journal Officiel* has recently published the "Report of the Administration of Criminal Justice in France for the Year 1870." The following are the passages that relate to suicides:

"During 1870 there have been brought under the notice of the Administration 4157 completed suicides; 3371 (81 per cent.) occurring in men, and 786 (19 per cent.) in women. The ages of 10 individuals are unknown; 18 were less than 16 years old; 130 between 16 and 20; 1067 between 21 and 40; 1669 between 40 and 60; and 1243 were 60 and upwards. As to their civil status, 1447 were unmarried; 1380 married, with children; 599 married, without children; 464 widowed with, and 199 widowed without, children. There were 2630 inhabitants of rural districts, to 1461 inhabitants of towns, the domicile of 66 being unknown. With respect to their occupations, 1848 belonged to agricultural, 933 to the various forms of industry, 119 were merchants or shopkeepers, 716 were of the liberal professions, 116 were servants, and 395 without avowed occupations. Of the 4157 suicides, 1384 took place during spring, 1129 in summer, 668 in autumn, and 976 in winter. As in former years, hanging and drowning have been the most frequent means of death resorted to. The presumed motives were misery and reverses in fortune in 383, family discords in 512, love, jealousy, debauchery or other misconduct in 701, various forms of suffering in 930 (these being physical in 515), and cerebral disease in 1377. In 22 instances suicide was committed by the authors of capital crimes, and in 232 the probable motive could not be assigned."

It is not yet many years since (1838) it was said that arsenic was a normal constituent of the human body, existing especially in the bones. This was as far as possible disproved by Flandin. Doubtless the arsenic, if any existed, was in the reagents employed by Orfila, who made the so-called discovery. Even now it is by no means certain whether arsenic does not exist naturally in many soils. Dr. Taylor says he has extracted an unmistakable quantity of arsenic from earth taken from churchyards in the North of England. Such statements necessitate the utmost care in removing bodies from the ground and in putting up the parts intended for analysis. An interesting case is narrated of a gentleman who, after removing a stomach for analysis, being called away in haste, wrapped it in a piece of wall-paper, the clean side next the organ. On analysis, both morphia and arsenic were found in the stomach, the origin of the last not being apparent until the paper was more carefully examined, when it was discovered to be colored with arsenic. The history of the case contradicted the use of arsenic in it: had it not, a false charge of arsenical poisoning might have been brought.

Superstition.—The Paris correspondent of a daily paper says,—

"Another swindling operation is also to be put down by the police,—to wit, the sale of magic plants by the herbalists. It will be scarcely credited that in Paris, in the nineteenth century, there is an immense consumption made of these sorts of herbs, of which very small portions are sold at fabulous prices. Thus, a piece of mandrake, gathered when the moon is full, costs at least fifty francs. A single leaf of azedarach, upon which, on the last Saturday of the month, has been pronounced the grand cabalistic formula of King Solomon, finds easily a purchaser at one hundred francs; while a bundle of moss which a centenarian has stewed up in a saucepan with two frogs and the skull of a man who has committed suicide, is looked upon as a bargain at two hundred. It is almost superfluous to add that moss, mandrake, and azedarach are nothing but common weeds, bought for a few centimes in the morning at the herb-market of the Rue de la Poterie, and raised by credulity and ignorance to the dignity of magic plants."

Importance of Clean Bottles.—A case of poisoning is reported in the *British Medical Journal*, under the following circumstances: A child, two weeks old, was ordered dill-water, which was procured in a bottle previously containing a preparation of opium and bearing a label to that effect. The bottle was empty, what liquid there had been in it having dried up, leaving a deposit on the sides and bottom. The dill-water dissolved the residue, and, upon analysis, was found to contain morphia and meconic acid. A teaspoonful was given to the infant, who immediately thereafter fell asleep. His breathing changed within an hour, followed by convulsions and narcotism. He died the following day.

Pharmacy at Sea.—The *Chemist and Druggist* contains a story of a sea-captain to whom a sailor applied

for relief for "something on his stomach." The captain consulted his book of directions, and prescribed "No. 15." Unfortunately, however, there had been a run on No. 15, and the bottle was empty. But the skipper, remembering old games of cribbage, made up a dose by combining No. 8 and No. 7, saying "8 and 7 make 15;" and the sailor, to whom the calculation seemed quite natural, took the mixture with startling effect.

Too Much Medicine.—The New Bedford (Mass.) *Mercury* says the medicine-chest of one of the abandoned Arctic whalers was broken open by some of the natives, who, thinking they had found a prize, proceeded to swallow the contents of all the bottles. The survivors described the result as startling; for the doses were too large for the constitution of even an Esquimaux. Several of the partakers died, and others wanted to, but couldn't.

The Obstetrical Society of London has appointed a committee to form a collection of pelves, illustrative of various points in connection with obstetrics. The Hon. Secretaries to the Pelvis Committee state that they will be willing, if desired, to make arrangements as to expense of carriage, casts, models, drawings, photographs, etc., with any society or gentleman in this country who may wish to contribute specimens. Their address is at the Society's Library, 29 Regent Street, W.

The *Leavenworth Medical Herald* of October 1 says, "We have before us a curiosity in the shape of a medical work, published in 1759, consisting of a 'Collection of the Yearly Bills of Mortality in London, from 1657 to 1758, inclusive.' From among the causes of death we select the following: Headmouldshot, Horseshoehead, Twisting of the Guts, Rising of the Lights, Stoppage in the Stomach, Livergrown, Strongullion."

A return completed for the year 1870 shows no less than 330 coroners in England and Wales,—233 for districts in counties, and 97 for boroughs. The great majority of them are elected by the freeholders or town councils; but in some cases by charter or prescription the appointment is made by the lord of the manor. It would be interesting to have officially the relative number of medical and legal coroners.

The returns of the mortality for 1870, just published, show that during that year the deaths of 18 males and 63 females whose ages were stated to be upwards of 100 years were registered,—in all 81 persons, against 63 and 79 respectively in 1869. The highest ages said to have been attained in 1870 were—108 by a male who died at Stone, in Staffordshire, and 107 by a female who died at Huddersfield.

Bravery of a Medical Officer.—In General Orders No. 99, from the Headquarters of the U. S. Army at Washington, reporting an engagement with hostile Indians on the 29th of September last, by an expedition under command of Colonel R. S. McKenzie, of the 4th Cavalry, "Acting Assistant-Surgeon Rufus Choate is commended for his care of the wounded under fire."

M. Legrande du Saulle, physician at the Bicêtre and the Depôt of the Prefecture of Paris, says the number of lunatics brought to the Depôt in the summer of 1871 was much below the average. A writer in the *Gazette Médicale* explains this by saying that during the Commune people could hardly diagnosticate a lunatic from a "Red;" and after the collapse of the revolution the Chassepot proved a most effective, though a deplorable, remedy.

A Serious Joke.—A typographical error makes a contemporary credit Dr. G. M. Beard, of New York, with the writing of a pamphlet on the "*Comic* Law of Intemperance."

Mr. Arthur E. Durham will succeed the late Mr. Poland as Surgeon to Guy's Hospital.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending Nov. 23, 1872, were 244; 146 adults, and 98 minors. 15 were of bodies brought from the country; making the mortality of the city 229. Among the causes of death were:

Consumption of the Lungs	34
Other Diseases of the Respiratory Organs	31
Diseases of the Circulatory Apparatus	11
Diseases of the Brain and Nervous System	40
Diseases of the Digestive Apparatus	20
Zymotic Diseases (1 from Smallpox)	14
Typhoid Fever	5
Casualties	5
Intemperance	2
Murder	1
Suicide	1
Debility (including "Inanition" and "Marasmus")	18
Still-born	24
Old Age	10

(The interments reported for the week ending Nov. 25, 1871, were 394.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

	Thermometer. Max.	Min.	Barometer. (2 P.M.)
Nov. 17	37.0°	25.0°	30.63 in.
" 18	44.0	32.0	30.38 in.
" 19	41.0	30.5	30.21 in.
" 20	41.0	30.0	30.14 in.
" 21	27.0	24.5	30.42 in.
" 22	36.0	32.0	30.08 in. (Rain.)
" 23	43.0	34.0	30.33 in.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 12, 1872, TO NOVEMBER 18, 1872, INCLUSIVE.

McKee, J. C., Surgeon.—Granted leave of absence for fifteen days. S. O. 220, Department of the East, November 13, 1872.

Forwood, W. H., Assistant-Surgeon.—Assigned to duty as Post Surgeon at Fort Richardson, Texas. S. O. 200, Department of Texas, November 7, 1872.

SATURDAY, DECEMBER 7, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURES ON PROLAPSE OF THE WOMB.

BY WILLIAM GOODELL, M.D.,

Physician-in-Charge of the Preston Retreat; Clinical Lecturer on the Diseases of Women and Children in the University of Pennsylvania.

(Continued from page 131.)

UP to this point we have learned that the cervix uteri, the inverted vagina, a pouch of the bladder, a rectocele, and the two peritoneal folds combine to make up this large hernial mass. This much is evident; but what is it? It is clearly not the vaginal cervix unduly elongated, because it, and only it, would compose the tumor. Can it be an inversion of the womb, or a simple descent of the womb? Or are we dealing with a hypertrophic elongation of the supra-vaginal cervix? These are questions, gentlemen, which the uterine sound will readily answer. For a distance of three and a half inches it meets with no obstruction, but now there is a hitch to its further progress. It has not, however, reached the fundus, but the bend of a retroflexion: this I know from my past experience in gauging these tumors. By a little coaxing, and by raising the handle of the sound, the tip slips onward an inch and a half more before it fairly impinges upon the fundus. Five inches, therefore, is the length of the uterine cavity, as measured from the apparent apex, or false os, of the cervix to the fundus. But if to this the everted portion of the cervix be added,—as it should be, by restoring the os externum to its proper position,—then the uterine cavity will, in reality, measure about six inches. The case, then, is not one of inverted uterus, else there would not be a uterine cavity. Neither is it one of simple descent, because the sound has proved not only a condition of preternatural elongation, but the fact that the fundus is high up in the pelvis. This completes our diagnosis; for, by exclusion as well as by direct evidence, it is as clear as noon that we have before us a case of so-called "*prolapse of the womb from hypertrophic elongation of the supra-vaginal portion of the cervix.*"

Every departure from health, every manifestation of disease, is the product of a train of influences which it is the business of science to track out. Let us try to unfold their significance in this case, beset though it is with so many difficulties that I have postponed its discussion to this the last week of the spring course, in order that all of you might be sufficiently advanced to catch the drift of argument. Four theories have been advanced,—and I now bespeak your earnest attention,—four interpretations of the phenomena, which at first blush seem hopelessly irreconcilable, and which yet have much in common. These theories are as follows:

(*a.*) That the primary affection is a downward growth, a true hypertrophic elongation, of the supra-vaginal portion of the cervix; and that the prolapse of the vagina and bladder is secondary, being the necessary result of the former. (*b.*) That there are no changes of structure in the cervix, other than the strictly mechanical one of elongation, which is a secondary accident, consequent upon the traction exerted by a primary prolapse of the vagina and bladder. (*c.*) Martin's (*Boston Gynæcological Journal*, 1871, pp. 230, 307),—that the circular hypertrophy of the vaginal portion of the cervix, of which the eversion of the os is the result, is a disease *sui generis;* and that it constitutes the weight which lengthens out the supra-vaginal cervix. (*d.*) Isaac E. Taylor's (*Bellevue and Charity Hospital Reports*, 1869),—that, contrary to the commonly accepted belief, the glandular portion of the cervix during gestation is not effaced, but hypertrophied, and that even after labor it still exists; for it has undergone nothing more than a momentary expansion of its canal for the passage of the fœtus; that consequently, if the natural process of involution does not take place, the gravity of this hypertrophied cervix will aid and sustain the elongation of the non-glandular part of the supra-vaginal cervix, viz., the isthmus, which is thick, soft, and ductile in the non-involuted womb.

Now, to my thinking, each one of these theories contains germs of truth, but no single one is of itself adequate to explain all the phenomena. For instance, granting that the disease is a true hypertrophic elongation; then, according as the suspensory ligaments of the womb are more or less yielding than its vesical and vaginal abutments, one of two things ought to happen: either the cervix must grow downward, carrying along with it the bladder and vagina, or else the cervix must grow upward, lifting the body of the womb higher and higher in the cavity of the abdomen. But the upward form of displacement never happens, to my knowledge, in this affection, although it is common enough whenever a fibroid in the lower segment of the womb begets a true hypertrophy of the cervix. Again, in this affection the upper portion of the cervix is cylindrical and of uniform size, but attenuated, as if wire-drawn, rather than hypertrophied. By firmly compressing the base of the tumor, I can feel and trace high up a firm cord-like body not thicker than my little finger. That such a shape cannot be attributed to growth alone, witness the bulbous and nodulated form of the vaginal cervix in cases of chronic cervical metritis. But growth combined with traction will produce this cord-like and symmetrical form. In Oriental countries, for example, where fancy prices are paid for jasmine pipe-stems eight and ten feet in length, the wood is made straight and of uniform size throughout by reeving a pulley and fastening one end of the cord to a growing shoot, and the other to a weight. Further, counter to the theory of growth alone is the telling fact that after a few days of rest in bed the uterine cavity will be found very much shortened. True hypertrophy implies a change of structure in-

capable of speedy resolution; even with the actual and potential cauteries it takes months to melt down a cervix enlarged by metritis. Hence this quick reduction in length is a behavior impossible in hypertrophic elongation. Once more, the so-called supra-vaginal portion in this patient is dense and hard, whilst the infra-vaginal portion is soft and spongy, as if its substance had been absorbed. The former is stem-like, the latter clubbed. There are extremely few cases—according to Huguier and Savage there are none—in which the two kinds of hypertrophic elongation coexist in the same cervix. The elongation is in fact limited either to the supra- or to the infra-vaginal portion; very rarely indeed does it affect both portions of the same cervix. Such an exclusiveness does not comport with the theory of hypertrophy; for how thereby explain this lack of concord in the behavior of two portions of one continuous structure? Is it reasonable to suppose that a merely superficial muscular collar, such as the vaginal attachment, can act like a conjurer's ring, and, by a sort of magic, inhibit deeply-seated tissue-changes on one side of it from passing through to the other? Rather than be embarrassed by this difficulty, I much prefer to apply the aphorism of the schoolmen,—*quod non habet, dare non potest*, a cause cannot communicate what it does not itself possess,—and consequently that the elongation, if supra-vaginal, is not communicable because it is not essentially hypertrophic. I say *essentially*, because I am willing to concede some degree of growth, not primary but secondary, caused by the irritation of another factor,—traction,—and by the stasis in the circulation induced by it.

If these arguments are sound, we must reject this theory. Nor should that of Martin's, if taken by itself, fare any better; for, if the weight caused by a circular hypertrophy of the vaginal portion can lengthen out the supra-vaginal portion, why cannot the same effect be produced by the far heavier weight of a cervix elongated in its infra-vaginal portion, of a cervix greatly hypertrophied eccentrically by chronic metritis, or of a large polypus or cancer of the cervix? Dr. Isaac E. Taylor—to whom the profession is greatly indebted for first showing that the cervix uteri is not effaced either by gestation or by parturition—has advanced an ingenious theory, which hinges upon this stability of the cervix, and has the great merit of consistency. His testimony regarding the autopsic lesions of this disease shows conclusively, if I understand him correctly, that the elongation does not affect the glandular portion of the cervix, but that portion of the womb just above the os internum, at the junction of the body with the neck. In other words, it is the supra-glandular portion of the cervix—the isthmus—which is drawn out from the corpus, and that at the expense of its thickness. Other observers have demonstrated that the glandular portion is hypertrophied circularly, not longitudinally; and this statement is further confirmed by the two important facts: first, that the internal os, so far from being separated more widely from the external os, is, by eversion of the cervical canal, often brought nearer to it; and, secondly, that the vesico-uterine peritoneal fold, instead of receding from the end of the tumor, approaches it so closely as to run some risk in the operation for its amputation. Granting, then, these premises, I think we are logically forced to admit, in the non-involuted uterus, not only the ductility of its isthmus and corpus, but also the gravity of its hypertrophied cervix. I shall, therefore, invite you to accept Dr. Taylor's theory; not, however, as one covering the whole causation of this affection, but as one throwing additional light upon it.

Of the four theories presented to you, let us now provisionally adopt the second one,—that of primary prolapse of the vagina and bladder,—in order to see how far it meets the phenomena. I speak and shall speak of the conjoint prolapse of the vagina and bladder, because from the fusion of the anterior wall of the vagina to the base of the bladder, a prolapse of the one must be accompanied by that of the other; and, therefore, in the study of the mechanism of elongation, it is immaterial to us which of these organs is the first to prolapse. Should, then, the vagina and bladder prolapse, they plainly must conspire either to drag down the womb as a whole, constituting a simple prolapse, or descent, of the womb; or else, in case the uterine ligaments resist this traction, to pull upon and stretch out the isthmus and lower portion of the corpus—viz., that portion of the womb lying between the vesico-vaginal attachment below, and the uterine ligaments—or, perhaps, pelvic adhesions—above.

Now, in fact, this very thing happens in this affection. The elongation is limited to that portion of the cervix and corpus just above the os internum, which would be dragged upon; and does not extend to the glandular portion, which would not be dragged upon, and which, therefore, could not increase in length, save only by growth. That the healthy womb is a somewhat ductile body, capable of extension without growth or change of structure, is proved by its behavior under steady traction. Thus, when adherent to the wall of a growing ovarian cyst, it has been found stretched out to a length of six or more inches. I have seen the same thing happen to a womb firmly bound to the cyst of a ventral fœtation; and this is a happier illustration, because the womb is always so jealous of an extra-uterine pregnancy as to form a decidual membrane, and to present such characteristics of post-partum sub-involution as congestion, softening, and ductility. In these cases the elongation is analogous to that predicated of a prolapse of the vagina and bladder, but in an opposite direction,—from below upwards,—the static, or resistant, force being now in the vesico-vaginal attachments; the dynamic, or active, force in the adhesions to a growing cyst.

Thus far this theory of traction has analogy and the autopsic lesions on its side. It also has the further merit of explaining how a few days' rest will bring about so marked a diminution in the length of the womb. Thus, the recumbent posture removes the weight of the prolapsed organs, and the womb shrinks up like an over-stretched

rubber band. It may, however, be reasonably objected, that since neither the weight of a very large polypus growing from the cervix, nor that of a vaginal cervix hypertrophied circularly or longitudinally, does materially lengthen out the supra-glandular cervix, it does not seem plausible that the lesser weight of the prolapsed vagina and bladder should effect that which greater weights fail to do. This objection can be met by assuming that, either through chronic congestion or through arrest of post-partum involution, the womb is thick, soft, and ductile,—conditions which of themselves would tend to make the gravity of the cervix act upon the plasticity of its intermediate portion. For instance, —to borrow a homely illustration from our candy-pulling days,—if a rope of molasses candy is held out at arm's length, the weight of its free extremity will draw out and thin out that portion just below the grasp of the hand. To sum up, then: the predisposition to this disease depends upon a tendency to cystocele or vaginocele; the receptivity, upon the coexistence of sub-involution or of its analogues.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ON THE EFFECTS OF THE BROMIDES IN EPILEPSY, WITH SPECIAL REFERENCE TO THE BROMIDE OF POTASSIUM.

BY M. GONZALES ECHEVERRIA, M.D.,

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(Continued from page 136.)

I WILL now compare the value of the bromide of potassium in the treatment of epilepsy with that of its following kindred salts: bromide of sodium, of calcium, of lithium, of ammonium, and of cadmium.

I have tried the bromide of sodium in 128 epileptics; 36 had never before used bromide of potassium, and the remaining 92 had been previously under it. Of the first, 22 were males, and 14 females. The respective ages of these patients were: in the first category, 2 children, 13 adolescents, 7 adults, total 22 males; 3 children, 6 adolescents, 5 adults, total 14 females. In the second category: 8 children, 29 adolescents, 18 adults, total 55 males; 6 children, 22 adolescents, 9 adults, total 37 females.

The bromide of potassium was stopped for one week with the epileptics who were using it, with relief to their fits, which previously had occurred from one to eleven times a week. A solution of bromide of sodium was at first employed in every case, beginning with twenty grains three times a day, and gradually carrying every single dose up to thirty, forty, and sixty grains. The physiological effects of such large doses were identical with those of the bromide of potassium. The eruption of the skin occurred in 82 cases, and 64 became very much troubled with obstinate constipation, gastralgia, and loss of appetite, accompanied with headache. The fits diminished in 14 of the 36 first cases, and in 35 of the 92 second they became better controlled when the bromide of sodium was combined with conium or ergotine. I should, however, state that the maniacal excitement of the epileptic insane remained scarcely influenced by the bromide of sodium, and that several of those epileptics who were previously taking bromide of potassium demanded to return to their old mixture. Their attendants also noticed the retrograde change in their mental condition. A series of observations renewed at different intervals, and throughout periods extending from four to eight weeks, led me to conclude that the bromide of sodium cannot supersede the bromide of potassium. In regard to the innocuity claimed for the bromide of sodium, and which rests a great deal on pure speculation, I may state that throughout my long experience with the bromide of potassium I have never met with any fatal result from its long continuance in the manner here described, and I have used it, within the last twelve years, in cases of epilepsy and epileptiform diseases certainly amounting to more than six hundred, as evinced by the hospital records.

I have administered bromide of calcium to thirty-two adults and four children, epileptic, in doses of from twenty to forty grains, three times a day. The experiment in some of the cases extended to three or four months; and I may add that all but six of the patients, two males and four females, had never tried the bromide of potassium. I cannot say that any positive relief was observed in the severity or frequency of the attacks, whether the salt was given alone or with conium. In eight epileptics, three males and five females, the stomach could not bear the salt in twenty-grain doses repeated thrice a day, dyspeptic symptoms supervening with painful constipation, which forced the salt to be abandoned. Nor have we obtained among the numerous cases of alcoholic mania received at this asylum the hypnotic effects claimed on behalf of the bromide of calcium, which has been administered unsuccessfully, under the circumstances, in thirty-grain doses renewed every hour until one drachm and a half was reached.

The bromide of lithium has proved more active in its hypnotic properties than the bromide of calcium or of sodium. I have prescribed it to twenty-two epileptics never before submitted to the bromide of potassium, and for a length of time varying from six weeks to three months. In two cases, both females, the fits diminished in frequency and severity; the patients were then placed under the bromide of potassium; they went for two months without one fit; they then returned to the bromide of lithium, when they had three fits during the same length of time. They have been now ten months under the bromide of potassium, and one of them has had only one fit. The other patients, eight males and twelve females, have been benefited in a decided manner by the bromide of potassium. In five cases where the bromide of potassium failed to arrest the fits and maniacal excite-

ment, the bromide of lithium—forty grains within three hours—did not act more effectively. Then again, twenty grains of bromide of lithium taken three times a day, by two adolescent female epileptics, superinduced great congestion of the kidneys, a condition, indeed, verging on nephritis.

I cannot say that I have noticed any positive uniform results of the bromide of ammonium in epilepsy, although Brown-Séquard holds that the combination of the bromide of potassium and the bromide of ammonium increases their good effects in this disorder. The latter exerts a special action on the larynx and pharynx, lessening their reflex sensibility, and producing, after at first stimulating the nervous system and cardiac activity, cerebral congestion and stupidity in less doses than any of the bromides hitherto considered. The unbroken current of evidence furnished by experiments I have repeated in hospitals and on private patients leads me to the conclusion that there are no real adjuvant effects derived from the association of the bromide of potassium with the bromide of ammonium; that in epilepsy the same benefit is derived from the use of the bromide of potassium alone; and that I do not recall to mind one single instance where the bromide of ammonium, in doses of from ten to thirty grains three times a day, continued for as long a time as fourteen months in different cases, has arrested the fits, although it diminished them in a few instances at the commencement of the treatment. Let me again state that conium and ergotine were, under the circumstances, also administered with the bromide of ammonium. Nor have I remarked, as advanced by Brown-Séquard, that the two salts under consideration, combined in large doses, would not produce bromism, while a smaller dosê of either alone would produce it,—a fact which has been contradicted by our experience at the Hospital for Epileptics and at this asylum. I may further assert that the addition of the bromide of ammonium to the anti-epileptic mixture has very often superinduced dyspeptic trouble, with strong objection on the part of the patients to persevere with it.

I have administered the bromide of cadmium to three inveterate epileptics,—one male and two females. The bromide of potassium had been employed in their cases with very unsatisfactory results. They had attacks almost daily, attended in the male with mania, lasting from two to three hours. One of the females had also *petit mal*. I began with half a grain of bromide of cadmium in half an ounce of orange-flower water three times a day. The effects were not so perceptible with the man as with the women, who experienced a feeling of sickness at the stomach, purging, and marked diminution of the pulse, falling respectively down from 86 to 72 and from 90 to 74. They also complained, upon taking the third dose in the evening, of a very strange feeling in the head, sickness with burning at the stomach, great looseness of the bowels, and thirst, and one of them had a severe fit, after which she remained more disturbed than usual, and vomited. Both women were so much upset by the bromide of cadmium that they refused to take it any longer. Both were adolescents.

One grain of the salt, prescribed as above, determined the most prompt and pronounced effects in the man, while he was in a state of epileptic insanity. In less than ten minutes he was covered with a clammy perspiration, and seized with nausea and vomiting, until he fell into a semi-comatose condition, with pupils enlarged, very feeble pulse at 46, slow action of the heart, involuntary passage of urine, and such general prostration and copious purging that stimulants had to be administered to him and warm applications constantly kept to the skin. He recovered from this condition in about two hours, still raving, very thirsty and depressed, and had two successive fits in the night, followed by great excitement. This man was an adult: the violent vomiting with purging and extreme depression observed in his case, as well as the results exhibited by the two women, discouraged me from persisting in further experiments with the bromide of cadmium, which, as already shown by Belgrave, is a powerful emetic, capable of operating on the nervous system only in an indirect manner.

Turning now to the bromide of potassium, I may assert that, by itself, it has not in epilepsy the beneficial effects which it acquires when combined with conium and ergotine, to suspend reflex excitability of the spinal cord, which is one of the most important elements in the production of convulsions. It is also necessary to remark that ordinarily the hypnotic properties of the bromide of potassium are powerless to subdue mental excitement in epilepsy or insanity, unless we administer the salt associated with some other narcotic,—a fact of great practical value, but hitherto unnoticed by authors. In epileptic insanity, in mania, in delirium tremens, large doses of bromide of potassium, given alone, generally fail to put the patient to sleep; if any drowsiness be superinduced, it does not last long, and on the patient coming out of it, the maniacal excitement, whether epileptic, alcoholic, or of any other nature, recurs with its former intensity. Let, however, conium, cannabis indica, hyoscyamus, or, better yet, ergot of rye, be added to even moderate doses of the bromide, and the result will be a prolonged and refreshing sleep, followed by quietness. A combination of chloral and bromide of potassium in equal parts, from fifteen to twenty grains of each, is also most useful to produce sleep when either of them alone fails as an hypnotic. Experience, therefore, bears me out in stating that, ordinarily, in insanity large doses of bromide of potassium are ineffectual to induce sleep or to arrest great mental excitement, unless associated with some narcotic. My results with opium in epilepsy have been of an unfavorable character. I have found that opium has only tended to increase the violence and severity of the attacks, and has proved powerless against the maniacal excitement attending the fits. Morphia may, with great precaution, be employed as a cerebral tonic to induce quietude and sleep, after a series of fits, when epileptics remain devoid of all energy and very low, but even then it is a dangerous medicine and very uncertain in its results. I have successfully employed morphia and bromide of potassium associated, or alternating with each other, in melan-

cholia, as suggested by Belgrave, and I have further noticed the corrective influence of the bromide of potassium over opium, pointed out by Professor Da Costa of Philadelphia; but, I repeat, my experience with opium, alone or with the bromide, in cases of epilepsy, has been unsatisfactory.

I have long ago shown at my clinics that, unless administered along with large doses of ergot of rye and conium, the bromide of potassium has very little or no influence on the *petit mal* or epileptic vertigo,—a fact which has been more recently corroborated by Voisin, but simply in reference to the inefficacy of the bromide to dispel said attacks of *petit mal*. I may make the same remark concerning the treatment of epileptic insanity.

(To be concluded.)

A CASE OF SUPPOSED PERIOSTITIS IN THE NEIGHBORHOOD OF THE FORAMEN MAGNUM.

BY FREDERICK P. HENRY, M.D.,

Philadelphia.

THE principal, although not the only, point of interest in the following case is the fact that the study of the mechanism of one of our commonest movements—that of nodding the head—was the only means by which the seat of the disorder could be ascertained.

T. H., æt. 30, driver of a street-car, came to the Catharine Street Dispensary on the 30th of January, 1872, complaining of a tingling sensation in both hands and arms, "as if they were asleep;" also of a feeling of weakness and numbness in both upper extremities. The tingling is not constant, but is at once produced by taking hold of anything, whether gently or with force. For example, in turning the brake of his car he feels it; he also feels it when he takes out his watch. He can produce it at any time by slightly bending his head forward, as in the act of nodding. This act, by the way, is performed when he looks at his watch, and probably is when he turns his brake; so that it is extremely doubtful whether, instead of ascribing the abnormal sensation to the contact of the foreign bodies, he should not have ascribed them to the accompanying motion of the head.

Occasionally he has momentary attacks of vertigo and dimness of sight, during which his face feels very hot. His appearance is that of a man in exuberant health. He stands erect and firmly on his legs. He has a fine color,—too much color, one would say *after hearing the symptoms*,—although it seems to have been habitual. His appetite is good; he sleeps well; he is neither fat nor lean, but well nourished, and, in fact, were it not for the symptoms detailed above, his physical condition would leave nothing to be desired.

On first seeing the patient, I had little time to bestow upon his case, but, perceiving it to be one of some interest, I determined not to lose sight of him.

I prescribed ten grains of the bromide of potassium three times a day, and two compound cathartic pills for three nights on going to bed.

February 5.—He has taken his medicine regularly, but the symptoms remain the same; he thinks, however, that he feels decidedly weaker. I prescribed iron and quinine,—somewhat empirically, it must be acknowledged,—ordered him to attend to the state of his bowels, and to take a hot foot-bath every night on going to bed.

February 13.—At this interview I examined the patient more carefully as to his previous history than I had done hitherto. I ascertained that in the month of June, 1871, he had a chancre situated upon the frænum præputii, followed by three non-suppurating buboes, two of which were situated in the right groin and one in the left. He received no constitutional treatment, but, to use his own words, he "burnt the chancre, and it soon got well." He has had no eruption upon the body, to his knowledge, no sore throat, and no rheumatic pains. His throat, on examination, appears perfectly healthy. There is an enlarged and indurated lymphatic gland upon the back of the neck, to the left of the median line and about one inch from the extremity of the left mastoid process.

At the last October elections (1871) he was wounded with a black-jack over the occipital bone: the scar is situated directly upon the nucha, and extends about an inch below it. After receiving the wound, he remained insensible for three hours. He feels stronger than when last seen, but the tingling sensation is still produced in all the fingers of both hands by slightly bending the head forward.

I made an ophthalmoscopic examination of the right eye, and found nothing abnormal. In the left eye there is an anterior synechia, caused by a prolapse of the iris from a corneal wound, giving the pupil a transversely elliptical shape. I did not examine the left eye, at the patient's request; he stated that it was "weak." I advised him to begin the use of the iodide of potassium; but he thought he had derived some benefit from the last prescription, a small quantity of which still remained, and wished to finish it, to which I agreed.

February 20.—About the same. If there is any change, it is for the worse. By careful examination I ascertained that the tingling occurs during the first stage of the act of nodding, viz., during the movement of the occipital bone upon the atlas. When the act proceeds farther, the tingling is increased. Ordered gr. x of potass. iodid. three times a day.

At this point a few words upon the act of nodding will not be out of place. This act is the product of a combined movement of the occipital bone upon the atlas, and of all the seven cervical vertebræ upon each other. It may, for our present purpose, be divided into two stages, the first stage consisting of the movement of the occipital bone upon the atlas, the second, of that of the cervical vertebræ upon each other. Let any one, preserving the cervical portion of the spine rigid, attempt to bend his head forward, and he will find that the motion—which is that of the occipital bone upon the atlas—is very limited. In order to the full performance of the act of nodding, it is necessary that the whole cervical portion of the spine participate in it. When this is done, the slight anterior convexity of the cervical region is abolished, and, the movement being carried still further, a slight concavity substituted, while the convexity is transferred to that portion of the spinal column which covers and protects the posterior columns of the cord.* The spine of the vertebra prominens, as well as the other cervical spines, becomes more prominent, as any one may observe by placing the hand firmly upon a cervical spine, and bending the head forward.

* The mechanism of this act (nodding) was tested upon a recent section of the cranium and cervical vertebral region.

In an article on "fractures of the odontoid process," by Dr. Stephen Smith, of New York (*Amer. Journal of the Med. Sciences* for Oct. 1871), a number of cases of that accident are detailed. In Case IV., in which there was caries of the atlas and axis, "pricking sensations were felt in the right superior extremity, and there was evidently a loss of muscular power in it." In Case V. there was "fracture of the axis in such a manner as to include the base of the process." It was "not till sixteen months after the accident" that the patient "complained of numbness and want of power in the left arm."

Now, in the case of T. H. a violent blow had been received upon the occipital bone. Cases XII. and XV. of Dr. Smith's article are cases of "fracture from violence applied to back of neck." Taking these facts into consideration;—to wit, that violence had been applied to the back of the neck, probably sufficient to fracture the odontoid process or the posterior arch of the atlas; that the patient had a syphilitic history, and that on bending the neck a tingling sensation was transmitted from the posterior columns of the cord along the brachial plexus to the nerves of the upper extremities and their terminal filaments,—taking these facts into consideration, I concluded that there was *some* lesion in the upper portion of the vertebral column, and I was led to localize that lesion either in the posterior border of the foramen magnum or in the posterior arch of the atlas, by finding that the disordered sensation occurred during the first stage of the act of nodding. What the nature of the lesion might be, I did not pretend to say, but considered it to be one of three things,—fracture, periostitis, or caries.

February 22.—T. H. states that he caught a violent cold on the evening of the 20th, since which he has not felt the tingling, and cannot produce it by nodding. Tried in vain to do so in my presence. Attributes the cure to rest from his ordinary occupation.

The violent cold of which the man complained was simply the effect of his medicine. It was a well-pronounced case of iodism.

I saw T. H. again on the 30th April, two months later. He had rested for several days before returning to his work, since which he had experienced no return of the symptoms that had formerly caused him so much anxiety.

Now, this favorable result of the case only serves to render the diagnosis still more difficult. If the tingling had been constant, I should attribute the disordered sensation to exhaustion of nerve-force in the upper extremities; but in that case the symptom ought to be common among car-drivers, and T. H. stated that he had not known any of his fellow-employés to suffer from it. It was *not* constant, however, being produced by bending the head forward; and I am forced to conclude that there was a slight degree of periostitis causing pressure upon the posterior columns of the cord at its commencement, during a certain movement of the head. The patient was one of those persons, of whom we see so many, peculiarly susceptible to the action of iodide of potassium, and a few doses of the drug were sufficient to cause absorption of the slight inflammatory thickening which had taken place.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR S. D. GROSS, M.D.

Reported by FRANK WOODBURY.

A LARGE SARCOMATOUS TUMOR IN THE FACE.

THIS boy, who is unusually large and well developed for his age (fifteen years), comes to us from the interior of this State on account of a large tumor in the right cheek, which he first noticed about a year ago. Since then its size has been gradually and constantly increasing, although it is unattended by pain, and he states that his general health is excellent. It has grown so large as to materially interfere with the movement of the jaw, preventing him in a great degree from opening his mouth. It was supposed at first to arise from diseased teeth, and the molars of the lower jaw on the right side were extracted without influencing the morbid action, and the teeth were found to be perfectly sound.

The tumor is now prominent, firm, and resisting; its surface is uniformly smooth, and not tuberculated. The skin above it is apparently normal and not discolored, there are no large subcutaneous veins, and the submaxillary and cervical lymphatic glands are not enlarged or indurated. It seems to send a caudate process around and behind the ramus of the jaw-bone. Examined from the inside of the mouth, the tumor is found to lie immediately below the mucous membrane of the cheek, extending backward toward the tonsil. The gums and alveoli of the upper teeth seem natural. The tumor evidently protrudes into the nasal fossa, but has not encroached upon the orbit, as the eye is natural and not affected. The disease may have begun in the antrum and extended outward to the cheek, and inward, protruding the internal wall into the nasal fossa; or it may have commenced externally and secondarily invaded the antrum.

This is not encephaloid disease. Nor could it be easily mistaken for scirrhus, which is accompanied by sharp, shooting pain, grows slowly, and soon involves the overlying skin, making it discolored, glazed, and hard, like the rind of bacon. In both of these affections the lymphatic glands in the neighborhood would become involved and enlarged early in the disease. If this were an encephaloid disease of the antrum, which often occurs, there would be an increase in the size of the subcutaneous veins in the cheek, some of the teeth of the upper jaw would be displaced, and there would be more or less ulceration of the roof of the mouth, a condition of things which does not exist at all in the present case. This is not melanosis or colloid, but belongs, in all probability, to a class of tumors which have been well defined and described by Virchow, and by him designated *sarcoma*, which is now understood to comprise a variety of morbid growths that had previously been confounded with encephaloid.

Although this tumor is not, in the strict sense of the term, malignant, yet, by its bulk and rapid growth, it might readily threaten the patient's life by involving important structures. If it were allowed to remain, it would soon press upon the pharynx and seriously impair respiration and deglutition. The indication, therefore, is to remove it, and this should have been done long before it attained its present size. Part of it extends around among the vessels of the neck, greatly enhancing the danger of hemorrhage and the risk to the patient. These tumors should always be removed as early in the history of the disease as possible; no other treatment is of the slightest avail; the knife is the only effective remedy. It is true that the

tumor may, and probably will, return in six, twelve, or eighteen months, but in some cases it does not come back at all, and our patient is entitled to our best efforts to relieve him from the disease and to give him the chance of permanent recovery. He is young, which is a great point in his favor. The disease may recur either in the parts in the immediate neighborhood, or in some of the internal, vital organs, when it will be likely to prove rapidly fatal.

We will give the patient the benefit of the doubt, and, after he is fully under the influence of the chloroform, remove the tumor; but I am not so sanguine of the result of the operation as I should be if the disease had not attained such a strong foothold. The external incision is begun at the commissure of the mouth; we shall endeavor to enucleate the tumor and bring it away entire, if possible. The parts are very vascular, and the facial artery and several smaller vessels require the ligature. The adhesions to the bone are very strong. A large part of the mass extends around the bone toward the internal maxillary artery, deep in the fossa behind the jaw. I shall not use the knife here, but by grasping the tumor with the forceps and twisting them I have succeeded in extracting it by evulsion. The tumor is fibromatous in its appearance, and strongly resembles those which grow in the pharynx and nares, which are called fibroid polypi. The wound is large, and bleeds freely. To check the hemorrhage the wound shall be packed with cotton impregnated with Monsel's solution, which acts as a powerful styptic and antiseptic. He shall have an anodyne, as he may require it, once or twice a day, and, if he does not rest well, a full dose of morphia at night.

October 26.—(Three days after the operation.) The patient is doing well. He is able to swallow food, and the wound in the cheek is granulating. The tumor was examined microscopically and found to be a fibro-sarcoma containing numerous spindle-cells.

November 2.—The patient died this morning from exhaustion. He had several attacks of dyspnœa, and last evening, as he could not open his mouth and was breathing badly, I performed laryngotomy, opening the larynx through the crico-thyroid membrane and inserting a double canula. This seemed to give him marked relief, and he was comfortable until this morning, when he sank rapidly. At the post-mortem, made by Dr. Barton, another tumor was discovered hanging in the pharynx, which we were prevented from seeing during life on account of his inability to open the mouth sufficiently. This tumor is about the size of a pullet's egg, and was attached to the mucous membrane between the pterygoid and styloid processes, and explains the difficulty of breathing. Another smaller growth was found depending from the basilar process of the occipital bone. These tumors are of the same character as the one we removed, but evidently entirely disconnected with it, each being distinct. Had the operation been followed by perfect recovery, he would have ultimately perished from these coexisting tumors in the pharynx.

NECROSIS OF THE HUMERUS.

This boy, seven years of age, has disease of the shaft of the humerus, and has been here a number of times during the sixteen or seventeen months that it has troubled him. We have taken out small pieces of dead bone at various times, but did not find the necrosed portion sufficiently separated, or the involucrum strong enough to maintain the shape and usefulness of the arm after an operation.

We find the shoulder partially anchylosed, a fact which is owing probably to the extension of the inflammation up into the joint. To prevent this from becoming permanent, passive motion must be perseveringly employed until the function is fully restored. On the external aspect of the arm there is a raw surface, which is covered with exuberant granulations partly coated with pus; at the bottom of the ulcer a portion of dead bone is seen protruding. A smaller sinus exists on the front of the arm, lower down.

In giving chloroform, always see that the patient is in a recumbent posture, that his stomach is empty, and that there is no constriction of the clothes. The responsible office of administering the anæsthetic should only be intrusted to a perfectly trustworthy and experienced assistant, who thoroughly understands and exclusively attends to the business. With less precautions chloroform is a dangerous article, although I have used it in over four thousand cases without a single death, an immunity which I attribute to my extreme care in selecting a pure article, and caution in administering it. During the process, if there is a failure of the pulse or respiration, the chloroform should be immediately stopped and restorative measures instituted. The tongue should be pulled forward, with a tenaculum, away from the throat; and cold affusions to the face and chest, flagellation of the nates and extremities, and inhalation of ammonia should be resorted to at once. Should these prove ineffective, an injection may be given of ammonia, either alone or in combination with alcohol, pieces of ice may be inserted into the rectum, and our great restorative agent, electricity, should be employed. These are all valuable means of recovering a patient who has taken an overdose of this potent agent, and one or more of them has, in my hands, always proved successful.

The patient being well influenced, we will enlarge this opening down to the bone and remove the necrosed portion. We will then carefully scrape out the cavity to remove all the carious particles of bone and unhealthy granulations that would interfere with the reparative process. There is always considerable hemorrhage in these cases, because the capillary vessels are clogged with lymph, which prevents their contraction and retraction, and allows more blood to escape than if they were normal. With the bone-forceps we extend the opening in the involucrum, and, with the pliers, extract this large sequestrum, which represents the entire shaft of the humerus. This was caused by an inflammation of the endosteum and consequent death of the bone, by a morbid action of peculiar character, due to an inherited specific taint of the boy's system. New bone was subsequently deposited from the periosteum, forming an investment of living bone, which is termed the involucrum, and the enclosed portion, which afterwards separates, is named the sequestrum, or *sequester*, as I prefer to call it.

After the operation the margins of the openings leading down to the bone are trimmed off with the scissors, as they are unhealthy and interfere with repair. We then scrape the cavity to remove all the spoiled lymph and dead bone, being careful not to remove so much as to weaken the involucrum, lest it might give way, producing a troublesome fracture. The wound is then thoroughly washed out by a stream of water from a syringe, to remove the chips. If the bone should bleed much, as will happen occasionally, the wound should be plugged with styptic cotton.

An emollient poultice will be applied to the wound twice daily, and each time it is changed the cavity will be washed with warm water, to which a little Castile soap may be added if the discharge is offensive. Permanganate of potassa is not needed here. His diet should consist only of the most nourishing articles of food. As a tonic he will have quinine and iron, and a glass of milk-punch daily. After a short time we shall commence with the iodide of potassium, as a general alterant and to counteract the peculiar poison which

produced this disease. The shoulder and elbow joints will be moved every day.

October 19.—The patient is presented. The part secretes laudable pus, and the granulations are now healthy. Bony matter will soon be deposited and fill the cavity in the bone, making it stronger than ever. It will not be as smooth as its healthy counterpart on the opposite side, and the medullary canal will not be reproduced,—the bone always remaining heavier than its fellow.

INFANTILE PARALYSIS.

This little two-year-old, in walking, drags his right foot. His mother states that this condition has existed for two months, and came on suddenly without assignable cause. He was not teething at the time, but had a bad catarrh of the lungs and was very feverish and restless. He has no power whatever in the limb, which is manifestly lowered in temperature. The muscles of the leg, thigh, and buttock are remarkably flabby, and, as he stands before us, the affected limb is thrown outward and the foot is strongly everted. Please notice, that although there is entire loss of power in the limb and the muscles are wasted, yet the gluteo-femoral crease remains natural, and shows no marked difference as compared with the opposite side. In hip-joint disease this would not be the case, as this crease is effaced early in the disease. This is an important diagnostic symptom, and should be borne in mind.

This is a case of infantile paralysis. This affection generally comes on suddenly, during an attack of fever, cholera morbus, cholera infantum, or teething. The little patient will go to bed apparently well, perhaps a little feverish, he is restless and tosses all night, and in the morning when the mother comes to him she finds him unable to walk; he has lost the power of one or both of his legs. This attack may occur at any period of infantile life, but generally occurs toward the end of dentition, when the large molars are coming through. Both limbs are generally involved in the paralysis, but there is never palsy of the upper extremities, no matter how much exists in the lower. The lesion, then, is one existing in the spinal column low down, not in the brain or its meninges, but in the spinal cord near where the sacral plexus of nerves is given off. It is due to an inflammation of the theca, or of the substance of the cord; which is followed by deposition of the usual inflammatory products. The arachnoid membrane of the cord is continuous with that of the brain. It is a serous membrane, and, when inflamed, pours out serum in abundance, and if the morbid action continues there will be an effusion of lymph, plasma and fibrin. This gradually disappears as the child grows better; the absorbents quickly remove the serum and lymph which constricted the nerves, but some of the fibrin may remain and become organized, thus maintaining the paralysis. The tendency of fibrin to organization then teaches us, by prompt measures, to step in and induce the absorbents to carry it off before this occurs. These products press on the spinal cord and nerve-trunks originating at the seat of the morbid action, and interfere with the passage of the nerve-current to the parts which derive their supply from this portion of the spinal cord. If this pathology is correct, then, in this case the pressure must be limited to one side, and the entire spinal cord is not implicated. These are very interesting cases as respects their pathology, diagnosis, and treatment.

The diagnosis is not difficult. The affection comes on suddenly, in a single night, generally during teething. In coxalgia the disease is gradual in its onset; there is considerable pain, referred to the knee, far away from the seat of the disease. This limb can be moved freely in every direction, to a greater extent even than in health; but in disease of the hip-joint the muscles would be stiff, and moving the limb would produce severe pain; percussion of the heel would also be painful, which you see is not the case here. During the progress of coxalgia the hip becomes swollen and flattened, the gluteo-femoral crease disappears, and the buttock, hip, and thigh form a continuous plane surface. This child is well nourished; his appetite is good, and the digestive function well performed; but in the strumous disease the exact contrary would hold, and the child would be sick.

Be extremely guarded in your prognosis in these cases. Do everything in your power, but promise nothing. As a rule, the sooner treatment is instituted, local and constitutional, the better chance the patient has for recovery. When it has existed for several months, as in the present case, the paralysis is generally persistent. If you are called on the first day, if the child is weaned, you may give a mild laxative to moderate the inflammatory excitement. Over the lower half of the spine sorbefacient applications may be tried, or a blister applied. For the latter purpose cantharidal collodion is the best; but it should not be applied thickly on the delicate skin of an infant. Or, if the blistering ointment is used, it should be diluted with simple cerate, and should not remain on more than two hours at the farthest. The object is to excite the absorbent vessels so as to induce them to remove the effused fluids. Our efforts should not be directed exclusively to the part, but also to the system. About gr. $\frac{1}{4}$ to gr. $\frac{1}{2}$ of mercury with chalk, or blue-mass, may be given thrice in the twenty-four hours. We do not produce ptyalism in these cases, for fear of causing gangrene and sloughing of the cheek or jaw. It is given for the same purpose as when administered in a case of opaque cornea or enlarged testicle, to stimulate absorption. It should be given cautiously, and the patient frequently visited. One foreign leech, or the tincture of iodine, might be applied to the affected spot, but vesication is much better.

This case has become chronic; vesication would be without effect here. The spinal column shall be washed every morning with warm water and shampooed with the hand, then flagellated smartly with the end of a towel wrung out of cold water. This process should also be applied to the affected limb; it will produce reaction, quicken the circulation, and stimulate the muscles. We will give,—

℞ Tr. saponis camph., f℥ij;
Veratriæ, gr. x. M.

a small quantity of which is to be rubbed twice daily along the entire spinal column and along the sciatic and crural nerves of the affected limb. This may have to be continued for a year or eighteen months, in order to be effective. The diet should be plain and nutritious. He may take,—

℞ Potassii iodid., gr. $\frac{1}{3}$;
Hydrarg. chlorid. corros., gr. $\frac{1}{20}$. M.

thrice daily. This will act gradually on the lymph at the seat of the disease, which is the cause of the difficulty, and promote its absorption.

PROPORTIONING DOSES TO AGE.—On this subject the *American Practitioner* for Nov., 1872, quotes the rule proposed by Dr. R. O. Cowling in the first number of that journal. "The proportionate dose for any age under adult life is represented by the number of the following birthday divided by twenty-four: *i.e.*, for one year, $\frac{2}{24} = \frac{1}{12}$; for two years, $\frac{3}{24} = \frac{1}{8}$; for three years, $\frac{4}{24} = \frac{1}{6}$; for five years, $\frac{6}{24} = \frac{1}{4}$, etc." [See the *Philadelphia Medical Times* for November 9, 1872, p. 86, for the rules given by Gaubius, by Dr. Young, and by Dr. E. H. Clarke, of Boston.—ED.]

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, DECEMBER 7, 1872.

EDITORIAL.

TROUBLES IN NEW YORK.

THE Commissioners of Public Charities and Correction in the city of New York would seem themselves, if the statements in the daily papers of that city are to be relied upon, to need some correction. How they are appointed we do not know, but we presume by the Legislature; they are five in number, and have the control of hospitals and asylums containing four thousand one hundred and six beds.

On the 8th of November they summarily removed Dr. M. G. Echeverria, from whose contributions to our columns our readers can judge of his professional ability, from the post of resident physician to the Ward's Island Lunatic Asylum. The troubles which preceded and led to this action are detailed by Dr. E., in a communication to the mayor, occupying a column and a half in the New York *Times* of Nov. 26. This letter sets forth an extremely disgraceful state of affairs, against which its writer seems to have manfully but vainly protested. Some part of his own action, if we understand it rightly, was impolitic, although taken in all honesty and good faith; but the commissioners appear to have been entirely reckless of their duties, discourteous and overbearing to their medical officer, and obstinate in their refusal to carry out any suggestions for the reform of most glaring abuses. No wonder they wanted to get rid of Dr. Echeverria, who could not be made a tool or an accomplice in their maladministration of their trust. We are curious to see what defence they will set up against his telling charges.

In the Bloomingdale Reception Hospital the Board seem to have had physicians more of their own stamp. An affidavit is made by a young colored woman, taken there in an epileptic attack, to the effect that she was most cruelly and indecently treated. One of the commissioners, in answer to an inquiry, said, "We have approved the conduct of the physicians, and there's an end of it." Since, however, the attention of the Grand Jury was called to both institutions, and this body was to hold an investigation, we may hope for a result more satisfactory to the public. We have, as yet, seen no mention of any further disclosures, either for or against the commissioners.

"SCOTCHED, NOT KILLED."

WHEN the Pennsylvania Legislature revoked the charters of certain diploma-selling institutions in this city, on the 20th of March last, there were perhaps some of the simple-minded who thought that the trade was destroyed, and that those who had plied it would be driven either to honest occupations, or to some other branch of pocket-picking. One of these "colleges" has indeed ceased to exist as such, and, with a sort of grim humor, an "intelligence office" has been set up where its Dean used to carry on his nefarious traffic. The other, at 514 Pine Street, is in full blast, and an advertisement of it, on the same page with that of the Hahnemann Medical College of Chicago, in Braithwaite's Advertising Department, is now before us. Forty dollars is the sum demanded for a course of lectures in this seat of learning, which certainly seems cheap, as the homœopathic school charge eighty-five; but perhaps, the quality of the article furnished being taken into the account, even forty dollars would be too much.

We are also in receipt of a letter from Poitiers, in France, asking what is the value of the diplomas of this forty-dollar college, and saying, "It is true that this university has had his charter revoked by the General Council of Pennsylvania, and it is yet able to deliver degrees and diplomas."

Another letter, now also before us, will explain how and why this business of selling diplomas can be carried on. It is dated Hong Kong, Oct. 12, 1872, and reads as follows:—

"TO THE SECRETARY AND REGISTRAR, COLLEGE OF SURGEONS AND MEDICINE, PHILADELPHIA:

"SIR:—Being an English qualified medical practitioner, I have the honor to request you will grant me

an American diploma of medicine, in order that I may be enabled better to practise under the American flag. Satisfactory proof of my qualifications may be had, and the Oriental Bank will accept any draft at sight that may be necessary to draw to cover fee, expenses, etc.

"I am, sir,

"Yours obediently,

"JAMES WILKINSON, M.D., F.R.C.S."

So long as there are men who are willing to pay for diplomas irregularly obtained, there will always be men ready to furnish them. The above is only a sample of numerous similar applications we have seen. It is the demand which creates the supply; all that is necessary is to print the certificates and to sign them, and then to arrange for their transfer, which is a matter of no difficulty.

The only puzzle which remains is, how an institution, the charter of which has been revoked, can be maintained in full career, under the same name, and without any apparent change. Is a charter unnecessary? We believe the spleen has been occasionally removed from some of the lower animals, seemingly without harm; and perhaps a charter, in the lower forms of medical colleges, can be in like manner dispensed with. We cannot very well ask "Dr." Joseph Sites, the "Dean of the American University of Philadelphia," about this, but we wish he would tell us, if he knows.

ERRATA.—In the *Times* for November 23, 1872, No. 56, in Dr. Mitchell's lecture, the word "vasal" was twice wrongly printed "basal," in the second paragraph on p. 115.

Also, on p. 127, the Endowment Fund of the Hopkins Hospital in Baltimore was said to be $2,000,000. It should have been stated at $200,000.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, OCTOBER 24, 1872.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. F. P. HENRY exhibited a *gall-bladder enormously distended by biliary calculi*, and read the following history:

M. K., æt. 68, female, single, was first seen by me on the 15th August, at which time she was suffering from abdominal pain and tenderness, most severe in the right hypochondriac region. There were no other symptoms, if we except a marked tendency to constipation. The lungs were sound, appetite good, and during the whole period of my attendance (upwards of two months) there was no nausea or vomiting. There was nothing to direct attention to the kidneys, but the urine was tested with heat and nitric acid, and found free from albumen. No abdominal tumor was discovered at this time, although palpation was made, but the tenderness was too great to admit of its being thoroughly performed. There was a good deal of tympanitis.

The pain was soon relieved by morphia and warm fomentations, and for several days the patient was quite comfortable, and able to walk about the house. The same symptoms returned, however, and continued to do so at varying intervals, the longest being about two weeks, the shortest two days, until the attack preceding her death.

I have made no note of the date at which I discovered a tumor in the right hypochondriac region, but think it was somewhat more than a month ago. This tumor, instead of aiding in the diagnosis, served rather to mislead. It was hard, very tender, and distinctly nodulated. I concluded that it was a cancerous tumor of the liver. Any one, by feeling the specimen, and reflecting that when I first felt the tumor the thick abdominal walls were interposed, will perceive how the sensation communicated to the hand was so modified as to lead to this error. The attacks of pain became more and more frequent, each one further reducing the strength of the patient, until the final one, which occurred on the 17th. It was controlled by the means which had always proved successful,—morphia in divided doses until half a grain had been taken,—but the patient did not rally. She gradually sank, retaining her faculties until within a few hours of her death, which occurred on the evening of the 20th. During the last two days of life there was a slight amount of jaundice.

The *post-mortem* examination, in which I was assisted by Dr. Nancrede, was made sixteen hours after death, the abdominal cavity alone being opened. The first object searched for was the tumor which had been felt during life, and which proved to be the gall-bladder distended with calculi. It was firmly adherent to the hepatic flexure of the colon, which rendered its removal somewhat difficult. The cystic duct was severed at its origin, and two calculi escaped, which, however, have been preserved. A portion of the liver was removed with the gall-bladder. The liver was rather small, its tissue soft, readily breaking down under the finger; and the bile-ducts were dilated in all directions. It was adherent by its upper surface to the diaphragm over the greater portion of the right tube. Under the microscope the hepatic cells were found to contain an abnormal quantity of oil-globules. The stomach, on its posterior surface, was covered with a number of punctated ecchymoses, and was quite empty. The kidneys were of natural size, and somewhat congested; the capsules were not adherent. There were a number of minute cysts covering the surface of both kidneys, the largest being about the size of a split pea. Under the microscope the uriniferous tubules appeared perfectly healthy. The bladder contained about an ounce of a fluid which had little resemblance to urine. It looked like beef-tea, and when allowed to stand deposited a substance exactly resembling shreds of beef; under the microscope this deposit was found to be composed of the epithelium of the bladder. The large intestine was filled with scybalous masses of a dark-brown color, and about the size of a walnut: several of these were examined, but no calculi were found.

In this case the paroxysms of pain were probably due to traction upon the adhesions existing between the gall-bladder and colon, rather than to the passage of calculi; the traction being caused by distention of the colon from flatus or fæces. I am led to this conclusion from the facts that relief invariably followed soon after the operation of an enema, that the jaundice

which would have occurred had there been obstruction of the common bile-duct was absent, and that there were no calculi in the intestines.

Dr. R. M. BERTOLET presented to the Society, for Dr. J. S. COHEN, *a larynx and trachea, with extensive tubercular ulceration in the former, necrosis of the right arytenoid cartilage, and multiple enchondromata of the tracheal rings.*

The main points of clinical interest in connection with the accompanying specimen, as kindly furnished to me by Dr. Cohen, are as follows:

The subject, a man forty years of age at the time of death, had complained during several years of an obscure pain at the left side of the larynx. Some three years ago occasional hoarseness occurred, and on two or three occasions a slight hemorrhage; the general health appearing intact. A laryngoscopic examination made at this time was negative, there being evidence of general congestion of the upper portion of the larynx only. On September 3, 1872, the patient was again submitted to laryngoscopic examination, in consequence of active disease of some five weeks' duration at the old seat of pain, which had gradually increased in severity, and was attended with paroxysmal cough, profuse expectoration, and great difficulty of swallowing. During the interval between these two examinations the general health had been good, up to the period mentioned, permitting the patient to attend to his business and work hard at it; but there had been occasional hoarseness, with more or less constancy of the localized pain. Physical exploration of the chest revealed only questionable impairment of respiratory murmur in the upper lobe of the left lung, attended with slight mucous râles, very much masked by the large mucous râles in the larynx.

Laryngoscopic inspection revealed a large circumscribed swelling of the left arytenoid cartilage, obstructing a view of the interior of the larynx. This was incised twice in rapid succession, producing a trifling hemorrhage followed by cough and expectoration, and attended with considerable relief to the local symptoms. No pus had been discharged, but the swelling seemed smaller, and deglutition became practicable. In a few days a discharge of pus occurred, followed by abatement of the local symptoms, and ability to swallow without difficulty. In the course of a week or two fresh symptoms of dysphagia supervened, compelling the exhibition of nourishment per rectum. The swelling, which had at no time completely subsided, was now distinctly acuminated, and was accompanied by moderate swelling of the opposite side. The vocal cords were apparently intact, but thickened; and no evidence of ulceration was visible about the epiglottis or in any portion of the larynx. Day by day this pointed swelling became more prominent, finally almost touching the epiglottis, and the patient declared he could feel it press the epiglottis whenever he made an attempt to swallow. It was the necrosed arytenoid cartilage working its way to the surface, but making little if any progress towards exfoliation.

Extensive infiltration of both lungs now supervened, followed by broncho-pneumonia, which terminated fatally in a few days, death occurring October 20.

Dissection, forty-three hours after death. The necrosed arytenoid cartilage was completely denuded, but firmly attached at its articulating surface, which had not apparently undergone any change; the vocal cord of that side, and the posterior portion of the ventricular band, had become obliterated by ulceration, and there was ulceration of the lower portion of the epiglottis on the same side. The trachea was intensely congested, but its mucous membrane was intact, save, here and there, evidences of the ulceration of a few glands. But the point of special interest was an irregular arrangement of hard nodules sprinkled over the anterior surface of the trachea, of cartilaginous or even bony consistence to the touch.

The lungs were disorganized throughout, and studded with small abscesses.

The patient was of a tuberculous family, several of whom had succumbed to ordinary phthisis.

The chief interest in the case, apart from the enchondromata upon the tracheal cartilages, is the prolonged evidence of laryngeal disease prior to involvement of the lung, and the rapid infiltration of the entire mass of the lungs so shortly before death.

Dr. COHEN had submitted the specimen for minute examination to Dr. Bertolet, who remarked that these cartilaginous tumors showed under the microscope the presence of hyaline cartilage, with interspersed points of ossification. It is worthy of note that these small outgrowths are mostly seated upon the centres of the tracheal rings, and do not spring from their upper or under margins, as is generally the case: in the latter site, by their union and subsequent ossification are formed those specimens of osseous tracheas to be found in almost every pathological museum.

The very minute size of nearly all these enchondromata, their yellowish-white color shining through the intact mucous covering, their aggregation into small groups, all lend a very deceptive appearance to this trachea, which in a superficial examination might easily be mistaken for caseous degeneration of miliary tubercle or of the mucous glands.

Tumors formed by enchondrosis of the laryngeal portion of the respiratory tract have been frequently observed, especially since the days of laryngoscopy, and in this situation they generally attain such dimensions as to imperatively demand operative interference.

Although great activity has of late years been manifested by laryngoscopists in discovering and studying new growths in the respiratory tract, I am not aware of a single case in which tracheal chondromata have been seen and diagnosed in this way. The insignificant size that they had attained in the present instance precluded the possibility of their detection during life.

Dr. BERTOLET also presented a *larynx and trachea removed from a tuberculous patient.*

The very extensive ulcerations of the ventricular bands and of the vocal cords have, in this specimen, almost entirely denuded the vocal processes of the arytenoids, which are seen projecting into the laryngeal cavity as white prominences. These cartilages have, in a remarkable manner, escaped any necrotic destruction, such as is frequently met with in cases of so-called "laryngeal phthisis."

The greatest amount of destruction has occurred at the three chief centres of the laryngeal mucous glands, the Morgagnian ventricles, ary-epiglottic folds, and the base of the epiglottis. Had this been a syphilitic process, we should not have found the tip of the epiglottis thus unaffected; it would have been more or less indurated and ulcerated, if not entirely destroyed.

The mucous membrane of the trachea is in a condition of catarrhal inflammation. Its mucous glands are filled with retained secretion that has undergone fatty degeneration, which can easily be emptied from their orifices by pressure.

In not a few glands this has already been accomplished during life by an ulcerative process. So that we find the mucous membrane studded with numerous small circular ulcers, having a muddy yellow base and sharply defined edges.

The most careful microscopic examination of the infiltrated zones of these ulcers and of the adjacent tissues failed to reveal the presence of any deposits in them of miliary tubercle.

It is still a mooted question among pathologists whether or not the presence of tubercles is the initial point of laryngeal ulcerations. There are certainly no traces of the tubercular element in this case.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Dr. J. G. STETLER, VICE-PRESIDENT, in the chair.

AT a conversational meeting held October 23, 1872, at 8 o'clock P.M.,

Dr. J. S. ESHLEMAN presented one of his patients, a case of united fracture of the tibia.

The family doctor being absent when the accident occurred, he was called upon to adjust the fracture. The line of fracture is transverse, and within an inch of the lower extremity of the bone; it was caused by the wheel of a cart. It was with difficulty that any displacement could be produced, or crepitation elicited, but, the patient being put under the influence of an anæsthetic, both were satisfactorily obtained, to which Dr. E. called the attention of two surgeons present and assisting at the time. The limb was adjusted in the fracture-box, and the family told to have their physician take charge of the case on his arrival. This is the last Dr. E. saw of the case. The family physician, his assistant, and the boy's father, state that the boy disengaged his limb and commenced hobbling about in the house during the third week, and walked the streets during the fourth week. I met him out and walking well in the fifth week. As the existence of a fracture in this case is doubted, I submit it for the examination of the surgeons present.

Is there a form of union by "first intention" in bone under favorable circumstances?

Dr. J. G. STETLER stated that the boy G. M., æt. 10 years, presented by Dr. E., was treated by Dr. Newcomet and himself, after the first dressing. He had been the family physician for some years. When he arrived, several hours after the accident, he found the leg placed neatly in the fracture-box. As the boy was very comfortable, the dressing was not disturbed. This was June 6, 1872. He saw the patient again on the 7th, 8th, 10th, 13th, 17th, and 23d. After the subsidence of the swelling, he examined carefully the supposed fracture, and came to the decided conclusion that the bones could not have been broken, as the union seemed complete. This was on the 23d, *and, to gain time*, he replaced the limb in the box, and permitted it to remain until the 29th. The dressing was entirely removed, and the patient allowed to sit at the window. Not being satisfied with this, the lad in a day or two began to move about the house, and went out on the Fourth of July. He mentioned that there was no extension or counter-extension in this case. He believed fully that the boy could have walked as well on the seventeenth day after the accident as he did on the twenty-eighth.

Could there have been a fracture with complete union on the seventeenth day? He and Dr. N. thought it impossible.

Dr. WASHINGTON L. ATLEE thought there must have been a fracture, from the amount of callus which had evidently been thrown out.

Dr. W. B. ATKINSON asked Dr. Atlee if he had employed the starch bandage as modified by Dr. Peck, of Iowa, and explained by him at the Surgical Section of the American Medical Association (see vol. xxiii. p. 563 *et seq.*).

The views expressed by Dr. P. appeared sound, and in the opinion of Dr. A. this modification merited the attention of the profession.

Dr. M. O'HARA called the attention of the meeting to the present "epizootic" among horses.

Dr. J. SOLIS COHEN remarked that the use of sulphurous acid, by fumigation, inhalation, and internal administration, might be profitably employed as a cure or preventive. Sulphur or the hyposulphites could be administered internally, and sulphurous acid be used by inhalation, either from sulphurous acid water of the British Pharmacopœia, or from the fumes of burning sulphur; while the sulphurous acid fumes from burning sulphur could be employed from time to time to fumigate and disinfect the stables. From analogy, he would expect more benefit from sulphurous acid than from any other agent.

Dr. A. G. B. HINKLE exhibited the fragments of a large nipple-shell, which he had removed from the vagina of a patient over eighty years of age, who had worn it as a pessary for more than four years. The removal of it was attended with considerable difficulty, as it resulted in fracture of the glass, and considerable cutting of the parts, as well as of the fingers of the operator.

The mode of removal was by passing a wire hook into the central aperture of the shell, with the forefinger of the right hand introduced as far up as possible upon the convex surface of the same, while gentle traction was attempted with the left hand. The glass yielded to the force of traction, and the operation was completed by removal of the fragments with the fingers. The patient made a good recovery.

Dr. W. L. ATLEE suggested that by introducing the finger into the rectum the removal might have been facilitated.

Dr. WILLIAM GOODELL remarked that he was once compelled to use the knife in extracting a ring pessary. For two years it had not been removed from the vagina, and at the end of that time fully one-half of it had become imbedded in the walls of the vagina, through the arching over and union of the granulations produced by pressure.

GLEANINGS FROM OUR EXCHANGES.

ON THE SEQUESTRATION OF ALLEGED LUNATICS.—In the *Journal of Psychological Medicine* (New York) for July, 1872, there is a valuable article on this subject by Dr. R. W. Parsons, Superintendent of the New York City Lunatic Asylum.

The question lies between the avoidance of needless irritation and annoyance to the patient, and obstructions to the early adoption of hospital care and treatment, and the providing of safeguards against the confinement of sane persons by mistake or intention.

Against submitting cases of alleged lunacy to investigation by jury are urged: 1, the inefficiency of the method; 2, the delays, annoyances, and publicity involved in it; 3, the opposition of friends, leading to neglect of needful restraint.

Some superintendents think patients should be taken to asylums just as the sick are to general hospitals.

A middle course is prescribed by the laws of the State of New York, two respectable physicians examining the patient and making affidavit of his insanity before a magistrate, who thereupon commits the person in due legal form, retaining the affidavits as his vouchers. [In Pennsylvania the physicians merely make the affidavits, which are endorsed by a form signed by the magistrate.] Practically this is open to some objections.

"Since the year 1847, no less than one hundred and twenty-five persons who have been committed to the New York City Lunatic Asylum as insane have been discharged as improper subjects. During a single year

forty persons have been discharged from American asylums as having been *not insane* at the time of their admission. Many such cases are admitted every year."

Among the mistaken conditions are: delirium of fever, intoxication, acute cerebral congestion or inflammation, debility, eccentricity, imbecility, senility, feigned insanity; cases are sometimes wrongly diagnosed through ignorance, want of care, too great reliance on the statements of others, and faulty methods of investigation. Transient mania has sometimes been wrongly thought to require commitment to an asylum.

Dr. Parsons adduces eleven illustrative cases, among them that of Miss Montez, so much talked of a few years ago in the daily papers. He comments upon the vague interpretation of the term *dangerous*, which by the laws of New York the examining physicians must consider applicable to the patient in making out their affidavits.

He thinks the examinations should be made by the physicians separately and independently, more than one visit being made if necessary. It must, of course, be upon his own personal observation that each one acts.

Information can be obtained from others as to the character and duration of the insanity, and the habits and conduct of the patient. Sometimes it is better that this should precede the personal examination. The motives of witnesses,—such as revenge, hatred, desire to get rid of trouble, avarice, the desire to put away inconvenient testimony, etc.; or of the patient,—to escape punishment for crime, to evade pecuniary liability or disadvantageous contracts, or to secure a comfortable home,—must be considered.

The examining physician must act not on a mere vague impression, but should be able to give the reasons for his belief in such terms as would be intelligible and convincing to other intelligent physicians. All his facts should be reduced to writing at once, distinction being made between those derived from his own observation and those based on the testimony of others.

These statements should be transmitted, with the patient, to the asylum, being important guides, sometimes, even to the identification of the proper person to be detained.

It is highly desirable that the examining physician should be aware of the circumstances relating to the patient's mental and physical condition for a short time previous to his commitment.

Dr. Parsons proposes that blank forms should be employed, in four divisions: 1, a personal description to mark the identity of the patient; 2, the facts in the case, as observed by the examining physician; 3, the statements of other parties to him; 4, the actual state of the patient.

The question arises whether these examinations, investigations, and affidavits should be made by general practitioners as at present, or by experts authorized by law to attend to this duty. Dr. Parsons favors the present method, and gives strong reasons for this view. He justly advocates the more thorough teaching of the subject of mental diseases in medical schools.

Two classes of cases are not now satisfactorily provided for: 1, criminal lunatics, or such as in any way become the subjects of legal investigation: 2, those in whom no evidence of insanity could be detected by the examining physicians, but who are believed by unprofessional observers to be mentally unsound. Dr. Parsons is inclined to think well of the appointment, in such cases, of courts of inquiry, composed of men thoroughly informed on the matter of insanity; these courts or commissions being clothed, in their peculiar province, with the powers and privileges of other courts.

The Vienna Association for Psychiatry and Forensic Psychology met on the 26th of October, the Vice-President, Dr. Leidesdorf, presiding. The death of Dr. Spurzheim, the late President, was announced, and a eulogy of his character delivered by Dr. Gauster.

A discussion followed upon the mode of dealing with the dangerous forms of insanity, especially as intercurrent upon other diseases, Drs. Beer, Leidesdorf, Flechner, Meynert, Schlager, and Maresch taking part. The matter of the sequestration of such patients, with the reasons for so doing, and the protection of the physicians assuming the responsibility, was referred to a committee consisting of Drs. Maresch, Meynert, and Gauster, to be further reported upon.

The Dangers of Operations on the Neck of the Uterus.—M. Alph. Leteinturier (*Archives Générales de Médecine*) draws the following conclusions from his observations:

1. Operations (even when slight) upon the neck of the uterus may prove the *point de départ* of serious affections.

2. In such cases, more or less ancient lesion of the uterine annexes is discoverable. The operation seems, so to speak, to awaken the old inflammation.

3. Three circumstances may be referred to as favoring and explaining this: 1, a partial lymphangitis, commencing at and spreading from the neck of the uterus; 2, general congestion of the pelvic organs; 3, a congestion localized in some part of the genital system, occasioned by a reflex action originating in the cervix.

Amyloid Degeneration.—It is well known that amyloid degeneration is very common after long-continued suppurations, especially of bones and joints. But Professor Cohnheim (*Virchow's Archiv*, vol. liv. pts. 1 and 2) gives three cases in which it was found after a suppuration of joints of only some months' duration. The suppurations occurred in healthy men from wounds received in battle. The spleen was affected in all the three, and the kidney in one, so that the amyloid degeneration was in an early stage. The author has no doubt that the degeneration was the result of the suppuration, and the cases are remarkable on account of its occurring after such a short period.

Repeated Smallpox. — The *Boston Medical and Surgical Journal* says that a woman recently died in Boston of smallpox who had, only twelve weeks previously, recovered from an attack of the same disease. In the first instance, she gave the disease to several others in the family; in the second, it took on the hemorrhagic form.

Not many months ago a child, not over a year old, died in Boston of a well-authenticated second attack of smallpox.

These cases show that recurrence depends upon individual susceptibility, and not on the length of the interval between the two exposures to contagion. In other words, it is not a "wearing out" of protection that causes the second attack.

Electrolysis.—In the number of this journal for September 2, 1872, there was given an abstract of the first part of Drs. Beard and Rockwell's paper on electrolysis (*Medical Record*, July 15). The following additional cases are published in the *Medical Record* for October 18.

Case XIV.—Mrs. P. Recurrent fibroid tumor under the ear, the size of the closed fist. The growth appeared ten years before, and was entirely painless. It had been twice extirpated. Several external applica-

tions of galvanism were made without reducing the size of the growth, but enabling the head to be moved more freely. Twelve electrolytic applications were then made by introducing a single needle into the tumor, and in two months there was marked diminution in its size. After each operation a large amount of hydrogen gas escaped through the opening made by the needle.

Two needles were now used. The cells were increased from twelve to twenty, and the needles left in for fifteen minutes. There was great swelling and pain after this operation, followed by a discharge which lasted two months and caused a further reduction in the growth. During the next six or eight months the treatment was continued, and the tumor is said to have decreased in size gradually until it had reached one-third its original bulk.

Case XV.—Cystic tumor of the submaxillary region, the size of a walnut. After the first operation there was considerable sloughing, but the tumor was no smaller. The second operation was done by "working up the base." This appears to consist in passing needles connected with both electrodes between the diseased and the healthy tissue. The tumor seemed to be entirely removed after this treatment, but subsequently a growth the size of a horse-chestnut reappeared in the same locality. This was enucleated by Dr. Crosby, and the base electrolyzed. The wound healed rapidly, leaving but slight deformity, and the cure seems to have been permanent.

(In this case it is hard to say how much of the successful result was due to electrolysis. In the second and third operations the growth was removed by the knife before the application of galvanism, and in the ulcer which remained—one and a half inch in length and half an inch in depth—the edges had to be brought together to hasten union.)

Case XVI.—Epithelioma of upper lip. Very painful. Three needles connected with the negative, and two with the positive pole, were introduced into the tumor. Sixteen zinc carbon cells were used. The operation was performed twice, with the result of the entire removal of the growth and leaving but slight cicatrices. No return of the disease after one year.

Case XVII.—Scirrhus of the breast. Four needles connected with the negative pole were inserted into the breast; the positive pole—a large sponge—being placed under the gland. The pain, which had been intense, was immediately relieved, and in a week the tumor had decreased to one-half its original size. The same operation was repeated in ten days, but the patient left the hospital on the next day, and, unfortunately, has been lost sight of.

Case XVIII.—Scirrhus of breast. Pain greatly relieved by external galvanism, but no alteration in size from electrolyzation with a very powerful current.

Case XIX.—Scirrhus of breast. In this case the terrible pain was at first very much mitigated by the use of the induced current, and afterwards still more relieved by the external use of galvanism. After three operations by electrolysis the greater part of the tumor sloughed off, and the patient seemed relieved of pain, but finally died of exhaustion.

Case XX.—Epithelial cancer of vagina, rectum, and external parts. After eleven electrolytic operations the growths, one of which was half as large as a cauliflower, and protruded from the vulva, were removed. The extreme pain was alleviated, but the disease subsequently returned, though with less rapidity.

In this case, the authors note the value and limitations of electrolysis in malignant tumors, and point out: 1. Its power to control hemorrhage. The growth was so vascular that it bled on the least touch, but in all the electrolytic operations but little blood was lost. 2. No shock was caused by electrolysis. 3. Better healing, and more tardy reappearance of the growth, than after the ligature or other means which had been applied. 4. The severe irritative fever that sometimes follows this operation. 5. The utter inability of even the most thorough electrolyzations to eradicate the growth in those parts where it was *connected with the mucous membrane*.

Bronchocele.—Dr. Fenwick (*Canada Medical and Surgical Journal*, Nov. 1872) publishes a report read before the Medico-Chirurgical Society of Montreal, Oct. 19, of a case of fibro-cystic bronchocele operated on by him with success. The tumor was a very large one, consisting of three lobes, and had existed eighteen years, not having increased for four years past; the patient was a Canadian woman, aged 21. Dr. F. made his incision in the median line, divided the fascia covering the mass, and then enucleated the latter. Very profuse hemorrhage occurred, but was controlled. The patient rallied well from a condition of prostration which followed, and on the fifty-first day from the operation she left the hospital with the wound closed.

Dr. F. thought that in any future similar case he would operate somewhat differently, dissecting beneath the whole mass first.

Much difference of opinion seems to have prevailed in the society as to the propriety of such an operative interference.

[We saw about eighteen months since a very similar case operated on with success by Dr. Maury at the Philadelphia Almshouse Hospital. See the *Photographic Review of Medicine and Surgery*, vol. ii. p. 17.]

The Pathology of Stammering (Dr. Raffaello Coen, *Wiener Mediz. Presse*, No. 33, 1872).—This author gives the following summary of causes producing stammering:

The pathological cause of stammering is not a primary manifestation (the view hitherto maintained by other authors), but a secondary manifestation, produced chiefly by an anomalous pause in breathing, or by any other pathological condition of the organism. The fundamental condition of its existence is characterized as a central affection of the medulla oblongata, or as a spinal irritation, or as a combination of both pathological conditions. The exciting causes are anger, rage, anxiety, etc., but especially sudden and severe irritation of the nervous system, as, for example, increased excitability of the spinal cord from inflammation, pressure, etc.

The treatment consists of systematic "lung gymnastics" (forcible inspiration and expiration), and electricity (galvanization or faradization of the phrenic nerve and fibres of the cervical plexus, supplying the muscles of expiration), accompanied in many cases by the general hydropathic treatment and the "Swedish movement-cure."

Successful Tracheotomy in Membranous Croup.—Dr. W. I. Royster reports (Trans. Med. Soc. of North Carolina for 1872) a case which occurred in his practice in January, 1872, in which, on the fourth day of membranous formation in the larynx of a boy aged four years, the trachea was opened by Dr. E. B. Haywood. "The tube provided for the occasion was too large to be inserted; the opening into the windpipe was therefore well dilated with forceps, and the wound left open." The inhalation of steam was kept up, and a temperature of over 90° Fahr. maintained in the room. Four days after the operation the wound closed by granulation, and breathing through the natural passages was resumed.

MISCELLANY.

Congress of the German Surgical Association, 1872.—The proceedings at this meeting, which commenced on April 10, at Berlin, and was presided over by Prof. Von Langenbeck, have attracted, it seems to us, very little attention. Professor Von Bruns, of Tübingen, was elected Vice-President; Professors Gurlt, of Berlin, and Volkmann, of Halle, Secretaries; Dr. Trendelenburg, of Berlin, Treasurer. In addition, Billroth, of Vienna, Bardeleben, of Berlin, Simon, of Heidelberg, and Baum, of Göttingen, were elected into the committee. It was decided to meet every year at Berlin, on some day betwixt the 10th and 13th of April. Every one practising surgery is eligible for election. One hundred and ten members were present. The first paper was by Volkmann, on "Comparative Statistics of Injuries occurring in Time of Peace and War." He considered that better results were obtained in war times, in spite of the disadvantageous circumstances under which operations had often to be performed, since the soldiers were picked, healthy men. Professor Busch read a paper on "the Epitheliomatous Form of Lupus of the Extremities." Schede, of Halle, on the "Minute Appearances of Tissues after the Application of Tincture of Iodine." At the second sitting, on the 11th, a paper by Prof. Roser, of Marburg, was read on the "Fungus Micrococcus as the supposed originating cause of Pyæmia." Dr. Trendelenburg then related a case of "Stricture of the Trachea," in which tracheotomy had been performed and the stricture afterwards dilated with bougies. He also showed a "tampon" for stopping the trachea in operations on the jaws, tracheotomy being performed, and an india-rubber balloon carried in by a canula and then blown up so as to fill the trachea and prevent blood running into the bronchi. Stilling, of Cassel, read a paper on the "Pathogenesis of Urethral Stricture and the Histology of the Human Urethra," and Metzler, of Darmstadt, one on "Resection of Knee-Joint." At the third sitting, on the 12th, Busch, of Berlin, read a paper on the "Treatment of Fractures of the Skull with Depression," founded on six cases. Mühlvenzl, of Vienna, showed a field-stretcher and ambulance-wagon, as used in Austria. Bidder, of Halle, read a paper on "Treatment of Simple Fracture of the Femur without Restrictive Bandages." Dr. Wegner, of Berlin, a paper on "the Effects of Phosphorus on the Bony System." At the fourth sitting, on the 13th, Wolff, of Berlin, exhibited preparations illustrating the growth of bone. Surgeon-General Löffler made a communication on knee-joint resections. Simon contributed a paper "On a Method of Artificial Dilatation of the Rectum," in which he advocated scraping out carcinoma from the sigmoid flexure. Danzel, of Hamburg, gave some "Surgical Experiences in the Mariæn Hospital of Hamburg." Heine, of Innsbruck, read a communication "On the Diffusion of Tumors by Parenchymatous Injections." Adelmann, of Berlin, gave a case of "Swallowed Fork, removed by gastrotomy." The operation was quite successful, but the patient died a month after, of some other affection. Professor Uhde, of Brunswick, reported several cases of transfusion of blood. Professor Von Langenbeck had prepared a paper "On the Treatment of Gunshot Wounds of Joints," which was not read, for want of time.

At the Third Convention of the Teaching Colleges of Pharmacy of the United States, in September last, the following resolutions were passed unanimously:

Resolved, That this Convention regards analytical chemistry as essential for a thorough pharmaceutical education.

Resolved, That this Convention considers lectures on and practical instruction in qualitative analysis as very desirable for second-course students.

Resolved, That the Colleges of Pharmacy be requested to communicate the questions propounded for written answers in the annual examinations to all other colleges of pharmacy in the United States.

Resolved, That this Convention considers the establishment of the degree of Master in Pharmacy as desirable to be conferred upon graduates in pharmacy of not less than three years' professional service, who shall have passed another more stringent examination than "graduates" receive.

Resolved, That the degree of Doctor in Pharmacy should be a purely honorary one, to be conferred only upon pharmacists who have distinguished themselves in the advancement of the science of pharmacy.

Resolved, That the Colleges of Pharmacy are requested to annually report through their delegates to this Convention the names of those upon whom their honorary degree has been bestowed.

In the *Edinburgh Review* for October is an article on the "Progress of Medicine and Surgery," which contains, among other things, an account of the use of anæsthetics in surgery. In one of its introductory passages a statement occurs which would be ludicrous if it were not so seriously untrue. "As early as 1800," says the writer, "Sir Humphry Davy suggested the use of nitrous oxide gas, and indeed it was used in dental surgery by Dr. Evans, in Paris; by Dr. Horace Wells, in Halifax, United States, (*sic!*) in 1844. Sulphuric ether was also employed at Boston in 1846; but these agents were either so disagreeable in their odor, or so inapplicable to the major operations in surgery, owing to their want of persistency, that they had no chance of establishing themselves as permanent agents in the annihilation of human suffering, etc." And that is all the writer appears to know about ether and nitrous oxide! It is not often that the ponderous dulness even of the *Edinburgh Review* blunders into such a quagmire of ignorance as this.

University of Munich.—Dr. Francis Dowling writes from Munich to *The Clinic* that the four hundredth anniversary of this University was recently celebrated with pomp. Delegations were present from

all the Universities in Germany and Austria, also from Oxford, England. The corps of medical Professors will compare favorably with any in Germany. Profs. Pettenkofer, Siebold, Bischoff, Nussbaum, and Liebig lecture there. The hospital is old and badly ventilated, in consequence of which about *one-sixth* of the cases operated upon in the institution die of pyæmia. The clinics are poorly arranged, although there is plenty of material.

California College of Pharmacy.—This institution was incorporated on the 7th of August last, with a capital stock of one hundred thousand dollars, divided into one thousand shares of one hundred dollars each. It is to be located in San Francisco, and lectures were to be begun on the 1st of October. It has been determined by the management to grant a scholarship to the holder of each share of the capital stock, which shall cover all fees attendant upon a course of two seasons, except that of graduation, and which shall be available at any time within one year from the date of issue of said share.

The Centennial Exposition.—The following gentlemen have been appointed the subscription committee for the medical profession, under the authority of the Citizens' Committee on Finance of the Centennial Celebration:

Dr. John B. Biddle, *Chairman;* Drs. Francis Gurney Smith, John Neill, Caspar Wister, and Edward Hartshorne.

Le Mouvement Médical of October 26 announces that on the 19th the Council of War had condemned to death M. Regnard, a former *interne* of the hospitals of Paris, who had acted as general secretary of the prefecture of police during the Commune. Dr. R. was implicated in the execution of a man named Largillière, shot in the Rue Haxo on the 26th of May, 1871.

Compensation of Expert Medical Witnesses.—Dr. E. B. Haywood, being summoned as a medical expert to testify in a case of rape before a criminal court in North Carolina, and having so testified, presented a bill of ten dollars for his services. The claim being disallowed, Dr. H. appealed to the supreme court, and obtained a judgment in his favor.

The *New York Medical Record* wishes to correct the statement, which is going the rounds of the journals, that Dr. T. G. Thomas has resigned the chair of Obstetrics in the College of Physicians and Surgeons, N.Y. Dr. McLane was elected *Adjunct* Professor merely.

The Board of Health of Washington, D.C., have recently made a report, from which it appears that the number of cases of smallpox in that city from January 1, 1872, to November 1, 1872, was 512; the deaths being 111, or over 21 per cent.

At the last half-yearly meeting of the Scottish Meteorological Society it was announced that the Marquis of Tweeddale had presented the Council with £100 for the prosecution of an inquiry into the properties of ozone.

The author of the "Origin of Species" will, it is said, be brought forward as a candidate for the post of Lord Rector of Aberdeen University at the next election.

Under the will of the late Sir David Baxter, the University of Edinburgh becomes entitled to £40,000 for its further extension and endowment.

The freedom of the city of Bologna has been conferred upon Professor Virchow, "on account of the eminent services he has rendered to science."

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending Nov. 30, 1872, were 261; 143 adults, and 118 minors. 16 were of bodies brought from the country; making the mortality of the city 245. Among the causes of death were:

Consumption of the Lungs	50
Other Diseases of the Respiratory Organs	49
Diseases of the Circulatory Apparatus	14
Diseases of the Brain and Nervous System	33
Diseases of the Digestive Apparatus	17
Zymotic Diseases (2 from Smallpox)	9
Typhoid Fever	5
Casualties	7
Cancer	2
Debility (including "Inanition" and "Marasmus")	30
Still-born	20
Old Age	9

(The interments reported for the week ending Dec. 2, 1871, were 508.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER. Max.	Min.	BAROMETER. (2 P.M.)
Nov. 24	47.0°	35.5°	30.35 in.
" 25	52.0	39.5	30.12 in.
" 26	43.0	40.5	30.13 in. (Rain.)
" 27	41.5	34.0	30.31 in.
" 28	35.0	27.0	30.35 in.
" 29	30.0	18.0	30.04 in. (Snow.)
" 30	25.0	15.0	30.10 in.

Mean temperature of November, 1872, 41.26°; of November, 1871, 41.0°.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 19, 1872, TO NOVEMBER 25, 1872, INCLUSIVE.

Randolph, Jno. F., Surgeon.—Assigned to duty as Post-Surgeon at Omaha Barracks, Nebraska. S. O. 204, Department of the Platte, Nov. 16, 1872.

Meacham, F., Assistant-Surgeon.—Assigned to duty as Post-Surgeon at Sidney Barracks, Nebraska. S. O. 204, c. s., Department of the Platte.

Heizman, C. L., Assistant-Surgeon.—Relieved from duty at Sidney Barracks, and assigned to duty at Omaha Barracks, Nebraska. S. O. 204, c. s., Department of the Platte.

Matthews, Washington, Assistant-Surgeon.—To report in person to the Commanding General, Department of the East, for assignment to duty. S. O. 297, Headquarters of the Army, A. G. O., Nov. 20, 1872.

King, W. H., Assistant-Surgeon.—Leave of absence extended thirty days. S. O. 106, Military Division of the Missouri, Nov. 21, 1872.

SATURDAY, DECEMBER 14, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURES

ON PROLAPSE OF THE WOMB.

BY WILLIAM GOODELL, M.D.,

Physician-in-Charge of the Preston Retreat; Clinical Lecturer on the Diseases of Women and Children in the University of Pennsylvania.

LECTURE II.

(Continued from page 147.)

THE conjunction of the theory of *traction* with that of *ductility*—traction from the prolapsing vagina and bladder; ductility from a chronic congestion of the womb—thus offers a very reasonable explanation of the phenomenon of uterine elongation. It also accounts for the eversion of the lips of the os externum and for the circular hypertrophy of the glandular portion of the cervix. By the attenuation of the mechanically elongated part, and by the constant dragging of the vagina and bladder upon their belt of attachment, the veins of this presumedly non-involuted or otherwise softened structure—and more especially the veins below the os internum—are unduly constringed, and their circulation is, therefore, rendered sluggish. Through the stasis thus induced, the whole cervix, but principally its glandular portion, gains an excess of nutrition. The papillæ and capillary loops of the arbor vitæ become turgid; the sub-mucous layer of the cervical canal grows exuberantly from within outwards, and by rolling out makes the flaccid lips of the os gape open. By the tertiary accidents of friction against the sacrum, of exposure to atmospheric action, and of irritation from the dribbling urine, the mucous coat of the cervix becomes thickened and changed in structure. Thus is brought about that circular hypertrophy which intensifies all the other symptoms.

It is a vicious circle throughout: the prolapsing organ—say the vagina—tugs at the bladder, which yields, and in turn lends its weight towards the further descent of the former; by alternately coercing and being coerced, their united action at last begets the circular hypertrophy of the cervix; the latter returns the favor by edging and nudging on the vagina, which responds by still more increasing the prolapse of the bladder and the hypertrophy of the cervix, and by aiding them in drawing out the supra-glandular portion of the cervix. Thus this reciprocation is kept up until the constantly elongating and growing cervix has attained length and weight enough to act aggressively. Aided now by the downward succussions communicated to it by the movements of the body, it completes the work by wholly inverting the vagina. The resistance of the vaginal tube to this final extrusion, being spent upon its cervical attachment, pulls the already gaping lips of the os still more apart, makes the cervical canal funnel-shaped, and sometimes everts it so completely as to convert the internal os into an external one.

From this point of view, the condition of the cervix in any given case of prolapse determines the nature of the disturbing cause. If the uterine cavity is barely or not at all lengthened out, as in the simple descent of the womb, we may infer that the prolapse of the womb has been the initial event. If, however, marked elongation of the cervix is present, then the vagina and bladder have been the primarily prolapsed organs. Thus defined, the latter affection is essentially a prolapse of the vagina and bladder, and not of the womb; whereas the former is as essentially a prolapse of the womb. I beg you, however, not to regard this interpretation as final or authoritative. Pressed to the quick it may show flaws, and I therefore invite you to accept it simply as one more flexible than any other yet advanced. The truth is perhaps not yet reached, for nature transgresses by anonymous agents, whose ways are often past finding out.

We must now put our theories to test, in order to see whether they can be clinically sustained. Like our former patient, this one has also reached that period of life when senile atrophy of the reproductive organs begins to take place. The vagina, having lost its pelvic packing of fat, tends to sag down. This tendency is urged on by her occupation as a laundress, which compels the erect posture and much lifting of heavy weights. In one of her numerous confinements the perineum has sustained injury. The rent has not only deprived the vagina of its chief abutment, but has also straightened out and shortened its natural curve, making its axis coincide very nearly with that of the superior strait. The anterior wall of the vagina, being now unsupported, began to bulge downward. During gestation the vagina, like the womb, becomes hypertrophied, and after labor undergoes the same process of involution. Perhaps after the birth of her last child this process was arrested, and the vagina remained thickened and with impaired tenacity. Such a condition would of itself tend to promote a descent of the vagina; for, indeed, in the last months of gestation a prolapse of its anterior wall is by no means an uncommon event. Again, the vascular growths at the meatus urethræ gave so much anguish that she schooled herself into the habit of holding her water as long as possible, and consequently—for the latter act implies the performance of the former—of putting off the evacuation of her bowels. Of course, then, the over-distended bladder and the overloaded rectum, by pouching in the vagina posteriorly and anteriorly, would materially aid in dragging down this already prolapsing canal.

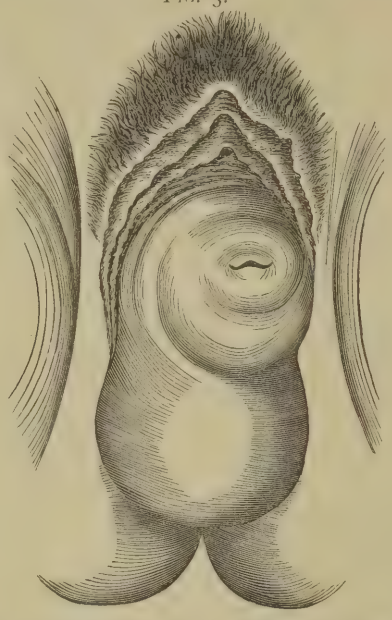
From the first, her bladder has kept pace with the vagina in its descent, until its base is now far below the level of its neck, and the pouch thus formed cannot be wholly emptied. In many cases, from the decomposition of the retained urine, cystitis is excited; even calculi are sometimes formed. Occasionally the neck of the pouch gets tightly jammed under the pubic arch; then the orifices of the ureters may become so obstructed as to bring about a dilata-

tion of the ureters or a hydronephrosis. Fortunately, not one of these accidents has happened to this woman; but, of course, the gravity of the urine contained in this pouch has helped to pull down more of the bladder, and still more of the vagina as well; for these arch-conspirators abet one another. The changes previously detailed have all along been taking place in the intermediate part of her womb, and in the glandular portion of her cervix, until you now see how long and stem-like the former has become, and how much the latter has got to look like the snout of a pig. This resemblance is heightened by an ununited transverse fissure of the cervix, resulting from one of her labors, which exaggerates the eversion of the os.

I told you that the final weight and length of the cervix, aided by the jars of the body, completely invert the vagina, which then pulls the gaping lips of the os widely open. Here are my vouchers: As I push the tumor back into the vagina, the eversion becomes less and less; and now, as I force it out by supra-pubic pressure, the eversion is exactly proportioned to the extent of extrusion. Again, the gravity and prolongation of the cervix, aided by the final descent of the womb as a whole, have smoothed out the rugæ of the posterior vaginal wall into mere water-lines. This could not happen from the weight of the vagina alone; nor, in my experience, does it happen in the simple prolapse of the womb, however complete it may be. Finally, this mechanism of descent explains a remarkable uniformity in the length of the uterus in all those cases of elongation in which the womb itself partly descends and the cervix appears outside of the body. Then usually the sound indicates a length of five inches or thereabout,—a limit attributable to the resistance to any further elongation and descent by the anterior wall of the vagina, which measures about two and a half inches in length. This great length of the uterus, by the way, furnishes a good reason for the pain felt by our patient when she reduces the tumor. For, since the fundus is not very much below its proper position, the return of the tumor—necessarily involving that of the cervix—can be effected only at the expense of either an undue stretching upwards of the suspensory ligaments of the womb, or of a forcible bending or retroflexion of the elongated cervix.

You must not, however, infer that in all cases of this affection the fundus will be found so high up in the pelvis as it is in our patient. On the contrary, in the majority of old cases you will find it very much lower down than it would be in health. Occasionally you will meet with a case—such as some of you last week saw in my private room—in which the elongated and heavy womb has finally overcome the resistance of its ligaments. It will then be found in a state of retroflexion, wholly outside of the body and contained in the vaginal sac. By palpation and the uterine sound, such a complete prolapse is easily recognizable. Even to the eye there are presented certain unmistakable marks. For the tumor is then of large size, and, as you will be able to understand from this figure, which I have borrowed from Dr. Taylor's admirable paper, the bulge of the retroflexed fundus makes the posterior vaginal wall hang down below the snout-shaped

Fig. 3.



apex like a dewlap. Nor, on the other hand, is it rare to see cases in which the fundus has apparently not budged from its normal site.

This affection of the cervix is restricted as a rule to the laboring-classes, and especially to those women, such as cooks and laundresses, whose work compels them to stand much on their feet and to lift heavy weights at a disadvantage. It and a host of other uterine disorders have very lately been attributed to an alleged excitation provoked by the treadle motion of the sewing-machine. I do not believe this; to the pure all things are pure, whilst even in the impure the wearisome movements of a laborious trade could hardly awaken, much less content, any sexual solicitation. True, professional operators on the sewing-machine are liable to uterine disorders, but, as a class, so are all seamstresses. Their susceptibility is not, however, traceable to a prurient source, but to the combined effects of bad air, bad food, over-work, close confinement, the sitting posture, and of such accessories as tend directly or indirectly to determine pelvic or portal congestions. Nor do I believe that onanism, in any form whatever, plays an important part in the production of this disease; for all the examples of it that I have seen have occurred in married women with large families.

(To be continued.)

The Odor of the Breath in Diabetes Mellitus (*Berliner Klin. Wochenschr.*, August 26, 1872).—M. Guéneau de Mussy, in the *Gazette Hebdom.*, July 19, says that for several years he has noticed that patients affected with diabetes have a sour breath that smells somewhat like alcohol, or like the heavy breath of the habitual drunkard. In many cases he was able to diagnose the disease from this odor of the breath, and he also noticed that with the decrease in the amount of sugar in the urine the odor disappeared from the breath.

ORIGINAL COMMUNICATIONS.

PRACTICAL HISTOLOGY IN VIENNA.

A COMMUNICATION TO THE BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA.

BY JAMES TYSON, M.D.

(Concluded from No. 57.)

UNSTRIPED muscular fibre was studied in the following manner. A section of fresh intestine of the dog or rabbit was taken, washed by shaking about gently in a very weak solution of bichromate of potash, and then placed in a dark straw-yellow solution of bichromate of potash for three days, during which the solution should be changed at least once. This loosens the connective-tissue net-work, as well as the net-work of muscular tissue, *i.e.* renders the fibres easily isolable. (Any weak acid, as hydrochloric or a .20 solution of nitric, answers the purpose, but the bichromate of potash solution is better.) The muscular coat is then stripped off quite easily, and small portions dissected in the fluid in which the tissue has been macerating. Very beautiful nucleated muscular fibre-cells may thus be obtained, which possess a yellow tinge in consequence of staining by the bichromate of potash.

Of *reagents* a one-half per cent. solution of chloride of gold renders the cells and their bundles more transparent, and the contours of the fibre-cells are more easily followed. There is no effect on the nucleus. Dilute acetic acid renders the nuclei more distinct.

To stain unstriped muscle.—Very beautiful preparations are made by staining, especially with chloride of gold, muscular membrane—as a portion of the stomach of the rabbit—and making sections of the same, which should be made both parallel and transverse to the length of the muscular fibre. In these and all other instances in which preparations to be stained with chloride of gold require washing, this should be done by shaking it about gently in a much weaker solution of the gold, or, what is cheaper, a very weak solution of tartaric acid. The gold staining is then accomplished as described, by mounting the membrane over a fenestra in cork, previous to immersion in the one-half per cent. solution, transferring to acetic acid water, and further hardening in alcohol if the preparation is not sufficiently hard when removed from the acidulated water. The sections are made as before described. It will be easily seen that very different pictures will be obtained in the transverse sections according as they are made through or beyond the nucleus. Beautiful net-works of nerves traversing the muscular lamellæ will also be stained by the chloride of gold. In all cases where sections are not sufficiently transparent, they may be made so by immersing for a few minutes in turpentine, or, better, in oil of cloves, to either of which they must be transferred from alcohol.

Striated muscular fibre was studied in several ways. 1. By maceration for forty-eight hours, more or less, according to the size of the fragments, in a dark reddish-yellow solution of bichromate of potash. It is then dissected with needles and examined. The fasciculi are rendered easily isolable, but are colored somewhat by the bichromate solution, and altogether more altered than by the following methods. 2. Warm small pieces of muscle in a capsule or test-tube containing equal parts of water and one-half per cent. solutions of nitric acid and chlorate of potash, for seven minutes, without boiling. As soon as the fluid begins to vaporize, remove the lamp to a greater distance, but keep up the heat for seven minutes; then transfer to distilled water. The fasciculi become most easily isolable, and may even be shaken apart. The connective tissue is thus dissolved, but less completely than in the next method, and the nuclei of the sarcolemma, as well as of the muscle-substance, are distinctly seen. The latter should be compared with the former. The nuclei in the sarcolemma of muscle are usually smaller than those of the muscular substance, and the latter oftener contain two nucleoli. 3. Boil a fragment of muscle for five minutes in a test-tube, in one part of one-and-a-half per cent. solution of nitric acid, one part of one-and-a-half per cent. solution of chlorate of potash, and ninety-eight parts of water. Place the muscle thus boiled in distilled water twenty-four hours, changing the water once. In this method the connective tissue is completely removed, and even the nuclei of the sarcolemma become invisible.

The distribution of nerves in striated muscle was also studied to a limited extent. This is best studied in animals, in the fresh muscle of those killed by woorara. No special methods were pursued, and many preparations were often examined in the so-called indifferent solution—one-half per cent. chloride of sodium—before nerves could be detected, and no information with regard to their terminations could be obtained. In the fresh muscle of coleoptera, however, as that of the *hydrophilus piceus*, the termination of nerves in the so-called Doyerian plates (*hügel*), and the continuation of the sheath of Schwann (tubular membrane) with the sarcolemma of the muscle, were easily demonstrated. The contraction of muscle is also here beautifully shown.

Alimentary Canal.—Very beautiful sections of the alimentary canal of the dog—œsophagus, stomach, and small intestine—were made by first washing the portion in the very weak chromic acid solution alluded to, hardening in the straw-yellow solution of chromic acid for forty-eight hours, transferring to alcohol for two days, and then making sections in the manner described. These may or may not be afterwards stained with carmine. The yellow coloration by the chromic acid serves also to give the different coats a distinctness not obtained with uncolored preparations. In the case of the small intestine the following layers can be demonstrated with perfect facility. 1. *Epithelium.* 2. *Membrana mucosa.* 3. *Muscularis mucosæ*, or internal muscular coat, composed of two layers,—*a.* circular, *b.* longitudinal. 4. *Submucous connective tissue.* 5. *Muscularis externa*, also composed of two subdivisions,—

a. circular, *b.* longitudinal; and finally, 6. *The peritoneum.*

STAINING OF TISSUES.

Gold Staining.—The general method of gold staining has already been given. Certain modifications must of course be made for special tissues and special objects, as demanded by their size or shape or the points to be demonstrated. Thus, in staining corneæ the period of immersion is longer if it be desired to stain the nerve-fibres than if simply to study the so-called corneal corpuscles, and corneæ of rabbits require, of course, longer immersion than those of frogs. For the former an immersion of as much as three-quarters of an hour was permitted for staining the corpuscles, and one and a quarter hour for nerves. For the latter an immersion of from ten minutes to half an hour was allowed before transferring to the acetic acid solution; the former for corpuscles, and the latter for nerves. In either case the epithelial membrane of Descemet may or may not be removed by pencilling with a camel's-hair brush, or by careful traction with forceps.

In the case of the rabbit's cornea, especially, the stained corneæ may be imbedded and sections made.

Washing is often necessary in order to remove coagula formed by irregular precipitation of the staining substance. This is done by shaking the stained tissue in a test-tube with alcohol, water, turpentine, or other menstruum with which it was last treated.

Again, if it is desired to stain the epithelium and submucous tissue of the intestine of a small animal, as a rabbit, without section of the gut, a portion of the intestine may be filled with the one-half per cent. gold solution, by means of a rubber tube with attached pipette, and allowed to remain thus for ten minutes; then empty and place in the acetic acid solution for twenty-four hours. Further harden, if necessary, in alcohol, imbed, and make sections either of the entire cylinder, or of smaller portions of it, as may be desired.

Beautiful *nerve-preparations* may be made of the tadpole's tail, cutting off a portion, washing in the very weak chloride of gold solution or solution of tartaric acid, staining with the one-half per cent. solution, imbedding, and making sections.

One of the most beautiful manipulations for demonstrating nerves is to fasten a frog on its back, open the abdomen, first inflate the bladder through the common opening of the bladder and rectum, then fill the bladder with the gold solution by means of the rubber tube and attached pipette, allowing it to remain for five minutes, while the exterior of the bladder is kept exposed to a similar solution for the same length of time. Portions may then be cut out and examined in glycerin.

The distribution of nerves in the mucous membrane of the vagina, now claiming considerable attention, is also thus studied. Small portions of mucous membrane are cut out of the vagina of the rabbit, suspended over a fenestra in cork, stained with chloride of gold solution, transferred to acetic acid water for twenty-four hours, and studied in glycerin.

Unfortunately, gold-stained preparations cannot be preserved for any length of time. They are best studied in glycerin, but mounted in this fluid they cannot be relied on for more than a month; though if the cover be cemented by damar lac, they keep even longer. Mounted in oil of cloves, to which they may be transferred from alcohol, and cemented by damar lac, they keep somewhat longer, even a year or more, with little change.

Silver Staining.—It is well known that "silver staining," so called, has this peculiar action, that it affects, not the cell-substance, but a certain intercellular cement, by which the cells seem united, and that it maps out, therefore, districts of cells by staining their periphery. It has its greatest utility in demonstrating the endothelium of blood-vessels, and especially of lymphatics, in serous membranes (centrum tendineum of the diaphragm, pericardium, etc.), but is also used in cornea-staining, in which it marks out the tortuous periphery of the peculiar corneal corpuscles. It is accomplished either by pencilling the organ or tissue of the living animal with a one-half or one-fourth per cent. solution of nitrate of silver, repeating once, keeping in the dark for ten minutes, and then placing in distilled water for twenty-four hours, renewing the water once; or, secondly, by removing the organ either from the living or recently killed animal, immersing in the silver solution in the dark for from one to ten minutes, and transferring to distilled water for twenty-four hours. In all instances the epithelium must be previously removed from the tissue or organ to be stained; which is very easily done by the simple friction of a camel's-hair brush, or by wiping the epithelial surface with a dry cloth. The most successful preparations of this kind I have ever seen were made from the central tendineum of the recently killed rabbit, by Dr. Klein, at the Brown Institution, London. The demonstration of the lymphatics and lymph-spaces was perfect. The preparations are best examined in glycerin, in which they may be preserved for a short time. Nitrate of silver injections of small blood-vessels, as those of the kidney of a rabbit, are also made by means of delicate glass pipettes connected by an India-rubber tube with the syringe carrying the one-half per cent. solution. The manipulation is delicate.

Preserving specimens.—The favorite menstruum at present used in Vienna for mounting all preparations, except the silver and gold stained tissues, is the *damar lac*. To this, preparations are directly transferred from turpentine or oil of cloves, the excess of these being removed by momentary contact with bibulous paper, covered, and allowed to dry; the excess of damar at the edge of the preparation answering at once for cement and wall of the cell. Preparations which have been previously surrounded by watery solutions or glycerin must of course be washed in alcohol before they can be placed in turpentine or oil of cloves; nor can preparations be directly transferred from alcohol to damar lac, but must first pass through turpentine or oil of cloves. For preparations previously immersed in aqueous menstrua, which do not admit of transfer to alcohol, and thence to turpentine or oil of cloves, glycerin is used, and the cover cemented with the damar lac.

Oil of cloves is also much used for mounting, and is the favorite medium for making sections transparent which are not sufficiently so. For this purpose it is more satisfactory than turpentine. An immersion of from a few seconds to several hours is permitted, and sections may remain in the oil of cloves until mounted in damar.

ON THE EFFECTS OF THE BROMIDES IN EPILEPSY, WITH SPECIAL REFERENCE TO THE BROMIDE OF POTASSIUM.

BY M. GONZALES ECHEVERRIA, M.D.,

Late Resident Physician to the New York City Asylum for the Insane, Ward's Island, N.Y.; Consulting Physician to the New York Hospital for Epileptics and Paralytics, etc. etc.

(Concluded from page 136.)

LARGE doses of bromide of potassium do not operate favorably when suddenly administered in the commencement of the treatment; but in all cases it is necessary that epileptics should be brought occasionally under the full physiological effects of the bromide of potassium, and then discontinue it until the effects of the bromide have subsided; then resume the ordinary doses of the salt, and again increase them when the attacks recur, in order to secure a permanent arrest of the disease. Tolerance of the bromide by constantly using larger doses than one drachm in twenty-four hours, when the fits are checked, should be avoided. Nor should the dose be ever augmented and thus prolonged, unless the condition of the patient indicates a threatening attack, or it is required by the severity and frequency of the fits. Epileptics only exceptionally bear more than one drachm of bromide of potassium, daily continued, without soon exhibiting symptoms of bromism.

It is of the utmost importance, when the fits have disappeared for several months, and recovery seems perfect, not to stop suddenly the use of the bromide of potassium, but to decrease its quantity, and to discontinue it in the slowest manner, after a protracted treatment, and seeing every indication that the epileptic habit has been overcome.

I have resorted for several years past to hypodermic injections of strychnia to promote a regular capillary circulation, and remove chilliness and pain from the extremities, or to bring about a rapid healing of atonic ulcers and eruptions in the limbs of inveterate epileptics and paralytics. I have also employed strychnia in such hypodermic injections as a vaso-motor stimulant and tonic, and several cases illustrating their efficacy are published in my work on epilepsy.

Sanson, in 1868, and Brown-Séquard more recently, have called attention to the antagonism of bromide of potassium and strychnia, but they have not alluded to the usefulness of strychnia to remove the above symptoms. Brown-Séquard states that strychnia counteracts the effect of the bromide, preventing the appearance of the bromism. My attention has not been attracted by any antagonistic action between the bromide and strychnia, in any of the cases where I have jointly administered them; but I have never employed, like Brown-Séquard, one-third of a grain of strychnia in conjunction with one hundred and thirty-two grains of bromide in a day,—the largest dose of strychnia I have injected subcutaneously never reaching beyond one-fortieth of a grain.

One of the simplest and safest ways of preventing bromism is by repeated administration of strong coffee. I order coffee always as a medicine and as an important part of the epileptic's diet, for it stimulates the brain, specially opposing itself to rapid disassimilation, and thereby lessening structural changes. In addition, the operation of the bromide is helped by coffee drunk with meals or throughout the day, and in this wise the supervention of bromism is very much delayed, epileptics being thus enabled to take twice as much bromide without the necessity for suspending it, which I deem important to secure the arrest of the disease. I have most closely watched the effects of coffee in epilepsy, and I have every reason to believe that it does not produce any of the evils generally deprecated. On the contrary, epileptics accustomed to it experience a comfortable feeling, and ask for it to rouse themselves from weakness and depression. If administered immoderately from the beginning, it may not be borne with ease, and may, like all stimulants, originate unpleasant effects.

It has been advanced by Duckworth, Williams, and others, that tuberculosis is hastened by the bromide of potassium. I have investigated the relation of pulmonary tuberculosis and epilepsy, and undoubtedly the generation of tubercles in the lungs is favored by the lesion of the medulla oblongata proper to epilepsy. I have traced the pulmonary trouble from its inception, and feel convinced that the association is more than a casual coincidence of the two morbid conditions, the striking frequency of tubercles or other pulmonary lesions I have met with in the post-mortem examinations of epileptics strengthening my belief.

Finally, it is interesting to notice that, while the narcotic effects of morphia injected subcutaneously to assuage pain in labor may operate actively upon the fœtus, conium and bromide of potassium appear free from noxious influence on the fœtus, when given to the mother. One epileptic woman took daily, throughout gestation, one drachm of bromide of potassium in tincture of sumbul, and had not one single fit. Another woman was troubled with three attacks during the last two months of pregnancy, and on each occasion the dose of bromide had to be raised, during a short period, from twenty to thirty grains thrice daily. In another case, during the last four months of pregnancy ninety grains of bromide of potassium were administered daily against nocturnal attacks, attended with *petit mal* in the daytime. The bromide in these last two cases was exhibited with fluid extract of conium and Fowler's solution. In the fourth case the bromide administered in the beginning, in twenty-grain doses three times a day, was, during the last four months of pregnancy, respectively carried up in each of them to forty, fifty, sixty, and seventy-five grains three times a day,

with one and a half fluidrachms of Squibb's extract of conium. In none of the foregoing four cases was the fœtus injured by the bromide. The children borne by the first two women are respectively five and six years old, and that of the last woman, a very lively boy, was sent to the Infants' Hospital about three months after his birth.

I may establish the following conclusions from the foregoing clinical facts:

The bromide of potassium operates actively in a paralyzing manner on the excito-motor power of the sympathetic and spinal nervous system, and produces cerebral congestion. The hypnotic and sedative properties of the bromide of sodium and bromide of calcium appear to be weaker than those of the bromide of lithium, which I have found in its turn a less active sedative than the bromide of potassium. The bromide of ammonium stimulates at first and then congests the brain, bringing about stupor in lower doses than any of the other three bromides here mentioned. The bromide of cadmium exerts no direct action on the nervous system, being a most powerful emetic and purgative, capable of causing, in very small doses, extreme depression.

The bromide of potassium is not a *specific* for epilepsy, but may contribute most efficiently to arrest the fits by suspending reflex excitability of the spinal cord in a more uniform and active manner than any of its kindred salts.

The benefits of the bromide of potassium increase and are better secured by administering it combined with conium, ergot, arsenic, and strychnia.

Sixty grains is the average daily amount of bromide of potassium required in ordinary cases of epilepsy; but it is necessary to keep epileptics, at different intervals during the progress of their attacks, under the full physiological effects of the bromide, to suspend it until the bromism is dispelled, and then to resume the salt again in ordinary doses.

The bromide of potassium alone exerts little or no effect on the attacks of *petit mal*, unless associated with large doses of ergotine (gr. vj to gr. xvj) and conium. In epileptic insanity, or in any other form of insanity, the hypnotic and sedative properties of the bromide of potassium are usually unavailable when the salt is administered alone, a refreshing sleep and subsequent quietness being more readily obtained when the bromide is prescribed along with some narcotic, such as conium, cannabis indica, hyoscyamus, and still better with full doses of ergotine.

The bromide of potassium should never be discontinued suddenly, even when the epileptic fits have not recurred in a long time, but the dose of the salt should be gradually decreased, and the treatment left off insensibly, when there is every indication of the complete eradication of the epileptic habit.

Nothing proves that the efficacy of the bromide of potassium in epilepsy bears any relation to the existence or severity of the bromide eruption. Arsenic prevents or mitigates it, and acts further as a valuable tonic. Subcutaneous injections of strychnia are the most efficient remedy to re-establish the depressed peripheral circulatory activity, and to operate also as a stimulant in epilepsy.

Coffee is one of the best means of correcting the unpleasant action of full doses of the bromide; it favors its effects, is in addition an invaluable cerebral stimulant, and should always constitute an important part of the epileptic's diet.

Bromide of potassium, when taken by the mother in large and prolonged doses, does not seem to have any noxious influence on the fœtus.

PERSONAL REMINISCENCES OF STATISTICAL RESEARCH.

BY ROBERT P. HARRIS, M.D.

IT may be of interest to the readers of the *Medical Times*, as it has been to a few intimate friends, to hear some of my experiences in the work of recalling from the past the lost or forgotten records of the Cæsarean operations of the United States,—a labor which, although not satisfactorily completed as yet, has very nearly approached this desired end. My first work was the dull, tedious, and unsatisfactory one of consulting the various medical journals, effete and extant, of our country, and some of the English and French journals which are known to have had occasional contributions from this side of the Atlantic, prior to the publication of our own medical periodicals; and to separate for rejection all cases reported as *Cæsarean* which were not the subjects of true *gastro-hysterotomy*.

At the very commencement I came upon the first American case, reported by Fleetwood Churchill, and credited to "*Mr. Cellen, New York.*" I opened a correspondence with parties in that city, examined the journals in our libraries, and finally, from a correspondence of dates, etc., became satisfied that there was no Mr. Cellen; that the case credited to him was operated upon by the woman herself; and that the ground for this name was the fact that the case was reported by Dr. Bassett, of Nassau, before the Rensselaer County Medical Society, *Dr. McClellan* being the presiding officer on the occasion.

This experience decided me to regard the work of no predecessor, but to commence *de novo*, and thoroughly examine every report, and as far as possible every State, and into the foundation of the various current rumors, some of which have been thoroughly credited for years past. One of the first of these reports that came to me was from Cincinnati; a gentleman having assured me of its truth, and stated that he passed the residence of the lady at the time of her illness and learned the fact of the operation from a neighbor. A thorough research has satisfied me that Cincinnati has yet to have her first Cæsarean case, notwithstanding that a gentleman long resident in this city was pointed out to me years ago as having been delivered from his mother by this operation.

Lancaster, Pennsylvania, was the seat of another rumor, as reported by Dr. Joseph G. Nancrede, in 1835, in his account of Dr. Gibson's first operation upon Mrs. Reybold, of Philadelphia. A careful in-

vestigation leads me to believe that neither in Lancaster nor in the county has a case occurred.

But the best apparently authenticated case came from Bradford County, where a certain well-known judge, of French parentage, who died a few years ago, at an advanced age, was always believed to have been taken from the abdomen of his mother by a French surgeon, the lady surviving the operation a number of years. The story came to me from a neighbor of the judge, and I was in great hopes it would prove correct, as it would have given to Pennsylvania the oldest operation of the Union; but I was doomed to be disappointed, for I succeeded in finding the physician of the judge, a lady who was present at his birth, and a second doctor, who had examined the abdomen of the mother, and, expressing surprise at not finding the cicatrix, was told that there had never been the least foundation for the current story. The family physician of the judge had heard the report for more than thirty years, and allowed it to pass without question, until after he received my letter of inquiry. So generally was this old rumor credited, that I received, just after I had ascertained the truth, a letter from the town where the judge resided, in which a physician assured me in strong terms that Madame L. had been operated upon as the report stated. As I had ascertained the truth, I thought it due to the doctor to convince him of his error, and through him set on foot a counter-statement. The French doctor was fond of a little excitement, and probably said something at the time of the birth, out of which grew the report in question, and, as he returned to France soon afterwards, it failed of a contradiction on his part, which it might otherwise have received.

It is often less difficult to find out the truth of a rumor than to discover a lost case, as I know to my regret in several instances where the operations were successful and the names of the surgeons given. The late Dr. Elias Samuel Cooper, who died in San Francisco in 1862, went to that city in 1855, from Peoria, Illinois, where he had operated upon a German woman, who was said to be still living in 1862. Dr. Cooper never reported anything in regard to this operation but the fact, and that the woman was residing in Illinois; his second operation was in San Francisco, and was also successful. Here the matter still rests; for, with all my letters to California, Ohio, Indiana, and Illinois, I have never been able to find any one who had ever heard where the operation had taken place; but I do not entirely despair yet, as my next letter from California may perhaps throw some light upon the subject.

It is probable that the Cæsarean operation was first performed by French surgeons in Louisiana, and possibly before the year 1803, when it became a State. That it did precede the other States is generally believed, and with reason; but the whole of the cases thus far belong to the dead past, except one, where Dr. Prevost, of Donaldsonville, is reported to have performed the operation several times with success, upon a mulatto, who died under the last infliction. This report has given me a great deal of trouble, and is still, at the end of two years, where I first found it, with no better prospect of entire exhumation than there was then. My work has satisfied me that unfavorable cases are more readily attainable than those which have terminated favorably. This is particularly unfortunate just now, as the excessive mortality of the last four years has given a preponderance of death in my whole table, when the favorable cases sought for would more than counterbalance them, making the successful operations 37 and the fatal 34, instead of 31 and 33, as they stand now. It is somewhat singular that in Great Britain, where there have been 107 cases and only 18 recoveries, there should have been 2 recoveries out of 9 operations in four years, against but 1 recovery out of 9 in the same period in the United States, where out of the first 25 reported cases there were 15 recoveries. The two successful foreign operations were both performed in Scotland, and promptly resorted to. Our own cases were *mostly* either very late in performance or in very unfavorable subjects, and decidedly below the average in this respect.

One of my chief sources of disappointment in obtaining information by correspondence arose from the fact that the term *Cæsarean* appeared to convey no very definite meaning to the minds of those addressed, and I was constantly annoyed by finding, after a thorough search for a reported case, that it was one of gastrotomy following rupture of the uterus, the opening of an adherent and perhaps inflamed extra-uterine cyst, or something equally foreign to the question, and of a decidedly different measure of gravity. Even professors in medical schools, judging from their reports, did not appear to be aware of the fact, that to constitute a Cæsarean operation we must not only incise the abdominal walls, but cut into the cavity of the uterus through the abdominal wound. Thus, out of eight cases reported by two physicians, I was, after a considerable waste of time and trouble, obliged to reject all but one. One of those rejected was the operation of a surgeon long since dead, which his son, also in the profession, assured me had been one of gastro-hysterotomy. Not feeling perfectly satisfied with the particulars obtained, I pushed my researches until I finally met with, in print, a letter from the operator to the late Prof. Meigs, proving the case to have been gastrotomy after uterine rupture.

This form of gastrotomy is certainly less fatal than gastro-hysterotomy, and cannot with any propriety be regarded as Cæsarean, or permitted to enter into the statistics of the latter operation. It is, if anything, a more important surgical procedure, as it tends to save the life of a class of subjects not bodily deformed, or apparently diseased, and ought to be much more frequently resorted to than it is. Drs. John Neill and William Byrd Page, of this city, have each performed it with success, upon cases which were certainly far from promising at the time of the operation.

We hear also of the *vaginal Cæsarean operation*, meaning either *hysterotomy*, for the relief of uterine occlusion or otherwise uncontrollable rigidity, or the *vagino-cystic section*, as performed with safety to

the mother and an extra-uterine fœtus, in 1816, by Dr. John King, of Edisto Island, South Carolina. *Gastro-elytrotomy*, fortunately, has a special title, and therefore cannot be confounded with those mentioned.

If statistics are to be of any value in establishing a *prospective recovery scale* after capital operations, then they must be rigidly kept to one special line of cases, and no trouble must appear too great in the eyes of the worker, that may be necessary to weed from his rough notes every case not thoroughly established upon reliable testimony. When I entered upon the self-imposed task related in this paper, I felt satisfied that the general opinion in this country with regard to the high mortality of the operation in question was too much influenced by the want of success in the British Isles; an idea which, by making the "section" a matter of dire necessity instead of election, had a tendency to vastly increase the mortality, by postponing the resort to the knife until too late to save life, except in a small proportion of cases; and I think I have established the fact that promptness of operation in the United States will save a large proportion of both women and children. But for the fact that this operation is frequently performed upon those who are extremely dwarfed and crippled, I see no reason why it might not be made to approach the measure of success known to have resulted from gastrotomy after rupture of the uterus,—*i.e.* 75 per cent. saved, as proved by the valuable researches of Dr. Trask, of Brooklyn.

This operation has been of more frequent performance in the United States than gastro-hysterotomy, and is one which is oftener required to be done, in fact very much oftener, than it is resorted to. If it were generally performed after rupture, there would be a much less mortality as a consequent of the accident than there is now.

SKIN-GRAFTING AS A TREATMENT OF INDOLENT ULCERS.

BY W. H. PARISH, M.D.,
One of the Resident Physicians to the Philadelphia Hospital.

Read before the Philadelphia Hospital Medical Society, June 1, 1872.

INDOLENT ulcers, especially when occurring on the anterior surface of the leg, are so frequently exceedingly indomitable under our most approved methods of treatment, that we willingly, though not very confidently, give trial to any new remedial measures that may be brought to our notice.

The transplanting of minute portions of healthy integument on to the granulating surface has been now tested by numerous surgeons, and the fact that these grafts will, under favorable circumstances, unite with the tissue of the ulcer and form so many *foci* of cicatrization, has been well established.

The degree of success, however, as compared with that obtained by other modes of treatment, seems as yet but indefinitely ascertained; and the kind of ulcer to which this treatment is or is not applicable is not clearly set forth. These points can be elucidated only by extended experience and close observation.

I have adopted the grafting process in ten cases, and in each case one or more of the grafts retained vitality and became encircled with cicatrization, evidently aiding materially in the healing of the ulcer.

These ulcers were all on the anterior portion of the leg, and were all, with the exception of one, of several years' duration. Not one of them was dependent on a syphilitic taint, and I was careful, by appropriate preparatory treatment, to secure as healthy a condition of each as seemed practicable. If there was too much inflammation, as indicated by a reddened, angry appearance of the ulcer and the integument around, the degree of inflammation was reduced by rest and the usual antiphlogistic means. If there was a tendency to the formation of a slough, this tendency was first removed. If there was an appearance of extreme sluggishness, stimulant applications were made for a few days.

I would especially call attention to the importance of freeing the granulating surface of any diphtheritic membrane that may be present. My first case, a man, presented this condition over the entire area of the ulcer, it being about the size of the palm of the hand, and of six years' duration. At first the exudation was not observed. On the twelfth day the grafts, failing to take root in the granulations, had entirely disappeared. Now removing the false membrane, which came away in strips, some about four lines in width, and applying new grafts, a favorable result was obtained. In a few days the ulcer was dotted with several islands of cicatricial tissue; and the healing was entirely effected in a few weeks.

In one other case this pseudo-membrane existed. In both it bore a resemblance to the false membrane of croup. The granulations could be seen, but with their florid hue changed by this drab-colored semi-opaque covering.

After having prepared the ulcer, I, with forceps and scissors, clipped, usually from the inner side of the arm, a portion of the integument measuring about three by four lines, and sufficiently thick to comprise the true derm. This section I cut with scissors into eight or ten pieces. Each piece was placed on the granulating surface, the epidermis being uppermost. These pieces were then pressed against the ulcer and held *in situ* by strips of adhesive plaster. The entire ulcer was covered with similar strips, and the limb surrounded with a bandage.

This dressing was permitted to remain for two or three days, when the plaster was found in position, but no longer adherent to the granulations, being loosened by the discharges. The grafts at that time could be detected as pale, transparent specks among the florid granulations. The same dressing was continued, usually until the ulcer was healed, being reapplied every two or three days.

During the early portion of this treatment the patient was confined to his bed, and when permitted to sit up was required to keep the leg elevated, and was strictly enjoined not to walk much, nor to stand long at a time until after the cure was obtained.

On the sixth or ninth day the transplanted integument will present a pinkish appearance, and close observation will find evidences of union and vitality. Do not, however, pronounce the attempt a failure too hastily if these appearances cannot at that time be discovered, for a point of cicatrization may be hidden among the granulations, to come to light in a few days. In one case, on the twelfth day after I did the first transplanting, I did a second, having lost sight entirely of the grafts. But on the fifteenth day, again looking at the ulcer, I found two of the first grafts distinct, and cicatrization established about them. Some of the second took hold, and the process went on to a cure.

The length of time occupied in the cure of an ulcer, under whatever treatment, seems to be so much influenced by the individual character of each ulcer, and every attempt at a description of its characteristics always so decidedly unsatisfactory, that no one without a personal experience extensive and varied can form an opinion as to the comparative value of this curative process.

However, after a rather protracted service as interne in the surgical wards of this hospital, which is a favorite resort of leg-ulcers, and with ample opportunities to observe and adopt various kinds of treatment, I am inclined to look with decided favor on this plastic operation, and to think that in many cases a cure may in this manner be greatly hastened.

MORBID ANATOMY OF THE EPIZOÖTIC.

(Communicated by FRANK WOODBURY.)

PROF. GROSS, at the Jefferson College clinic, recently exhibited the post-mortem specimens obtained from a horse which died during the late epidemic, upon which he made the following remarks: "The horse was of medium size, and fourteen years old; he had been previously healthy during seven years in the service of Dr. Maxwell, his last owner. During the prevalence of the horse disease he suffered in common with his solipede brethren, and, although treated with the greatest care, he relapsed, when apparently convalescent, and died. This may be taken as a typical case of death from the disease, complications having been avoided by the treatment.

"The examination, carefully made by Mr. West, disclosed a large quantity of serous fluid in the thoracic cavity; the lungs were partially adherent, and a section sank in water, showing a condition of infiltration or hepatization. In the trachea and larger bronchial tubes spots of lymph and numerous ecchymoses indicated the severity of the inflammation, and the mucous membrane, as far as the anterior nares, was discolored and covered with a muco-purulent secretion. Many of the bronchial lymphatic glands were enlarged. There was no evidence of disease discovered in the œsophagus or remaining viscera, and death evidently resulted from pleuro-pneumonia. The sweeping character of this disease and its rapid spread over the continent lead me to consider it of the nature of dengue. It is not communicable by ordinary contact; the morbific germs float in the atmosphere, making it epidemic rather than contagious."

THE INFLUENCE OF ALCOHOL UPON THE TEMPERATURE OF THE HEALTHY HUMAN BODY (Professor Binz, of Bonn: *Virchow's Archiv*, vol. liii., part 4, 1871).—The old opinion that alcohol in the form of spirituous liquors increased the temperature of the body has been altered in later days by experiments. From experiments performed on the lower mammals it appears that the temperature is decreased by the introduction of alcohol into the system, though by no means to a dangerous degree. Respecting the human mammal the question has remained undecided, until recently one of Prof. Binz's pupils, Dr. Mainzer, has performed a series of experiments, mostly upon himself, for the purpose of determining the facts concerning the action of alcohol upon the temperature of the human body. The empirical statements of Todd had already rendered it probable that alcohol does not increase the temperature of the fluids of the body. Dr. Binz gives the results of his pupil's labors as follows, and says that nothing has been neglected to make the experiments perfect. Thirty observations, three to four hours long, were made, after which twenty-four were made upon Dr. Mainzer, and six upon one of his companions.

Both are healthy men, and accustomed to the use of alcohol in the daily enjoyment of the German national drink.

The observations were made upon Dr. Mainzer and his friend while undressed, lying in bed, with light covering thrown over them. The temperature was taken by means of a thermometer inserted into the rectum. This remained in the rectum twelve minutes,—being inserted every fifteen minutes.

The time for making the observations was from 7 to 10 in the forenoon, from 3 to 7 in the afternoon, and from 9 to 12 in the evening.

The alcohol was 98 per cent., and the quantities taken were 15, 40, 50, 75, and 80 cubic centimetres. It was usually mixed with twice or three times its bulk of water.

Mainzer concludes his labors with these words: "No important change in the temperature of my body can be discovered after drinking 98 per cent. of alcohol in doses of 15 to 80 cubic centimetres." Mainzer's friend appears to have been somewhat more sensitive to the effects of alcohol, and his temperature fell relatively lower, although *no toxic influence* of alcohol was observed. These results agree with those already obtained by Ringer and Rickards from experiments upon the human body.

Neumann obtained similar results from experiments upon rabbits; in which the administration of alcohol produced the characteristic effects more slowly in those already accustomed to its use by previous experiments.

Bouvier has drawn the conclusion that alcohol can reduce the temperature of the body in fevers only when given in continued and *not small* doses.

It is yet an open question when this administration of alcohol should occur. That under certain circumstances it may prove beneficial, Manassëin and Bouvier have shown upon septicæmic animals. Mainzer thinks that his experiments prove that alcohol cannot produce objective heat in the human economy, but that, on the contrary, it brings about a decided diminution of the temperature. [See also an article on this subject in the *Times* for October 5, 1872, p. 13.]

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, DECEMBER 14, 1872.

EDITORIAL.

THE ANNUAL REPORT OF THE SURGEON-GENERAL U.S.A.

THIS concise and business-like document, now before us, contains some facts of general interest, and some which will specially engage the attention of members of our own profession. We will mention them in this order.

The United States army consisted, during the fiscal year ending June 30, 1872, of an average strength of 24,101 white and 2494 colored troops,—making 26,595 in all. During the year, this force required the disbursement, for medical and hospital purposes, of $177,753.66.

Among the white troops the cases on the sick-list amounted to a proportion of 1974 per 1000, or nearly two entries for each man during the year; of this, 1671 per 1000 were cases of disease, and 303 per 1000 were wounds, accidents, or injuries. Among the colored troops the proportion on the sick-list amounted to but 1409 per 1000, viz., 1178 cases of disease, and 231 of wounds or accidents.

Among the white troops the proportion of deaths was 15 per 1000,—11 per 1000 of disease, and 4 per 1000 of wounds or injuries,—1 in 130 of the cases treated. Among the colored the deaths were 22 per 1000, viz., 18 per 1000 of disease, and 4 per 1000 of wounds,—1 in 65 of the cases treated.

The discharges on "Surgeon's Certificate of Disability" were, among the white troops, 846, or 35 in 1000 of mean strength; among the colored, 76, or 30 in 1000 of mean strength.

Now, when we look at these figures, the first impression would be that the colored troops were the hardier, since they had 565 per 1000 fewer on the sick-list in the year. On reading further, however, we find that the proportion of deaths from disease was twice as great among the colored as among the white troops, while that from all causes was 1 in 65, to 1 in 130 among the white. The explanation of these differences would perhaps appear if a statement were made of the service on which the sets of troops were respectively engaged, the facilities of obtaining supplies, the forms of disease prevalent, and some other modifying circumstances which may not now suggest themselves.

Some of our readers will doubtless be surprised to learn that during the last year (seven years having elapsed since the close of the war) 28,481 applications for information, "chiefly in regard to the cause of death or discharge from service, and the hospital history of soldiers dead or disabled during the war of the rebellion," have demanded attention at the record and pension office.

The Army Medical Museum has been enriched by the addition of 1022 specimens. The library contains 19,000 volumes and 7000 pamphlets.

A curious fact appears in the following statement:

"The number of applications approved during the year for artificial limbs or commutation for the same was as follows:

COMMUTATION.		LIMBS IN KIND.	
Legs	148	Legs	75
Feet	7	Feet	4
Arms	219	Arms	27
Apparatus	132	Apparatus	1"

We trust that such action will be taken by Congress as will provide for the early distribution of the first portion of the Medical and Surgical History of the War. This great work, which has been carefully prepared under the supervision of the intelligent attachés of the Surgeon-General's office, will form a most important addition to our professional literature. We cannot but feel a pride in the volumes already issued from the same source, which, for accuracy, scientific value, and elegance of execution, have been at least equal to those of older countries.

In concluding this notice, which we trust will not seem longer than the importance of its subject warrants, we must allude with some surprise to the large number of vacancies in the service,—fifty-nine, four of which are surgeoncies, and *fifty-two* assistant-surgeoncies. The report justly urges the necessity of filling up the medical corps to the

number provided for by Congress in 1866; a recommendation which it is to be hoped will have due weight.

THE FEE-BILL.

PHILADELPHIA stands alone among cities in the possession of a rigid fee-bill, carrying a certain weight of authority as having been adopted by the College of Physicians, and employed as a guide by many practitioners in making out their accounts. We have so recently alluded to the matter of compensation for medical services, that we need hardly go over the general ground again, but would urge once more the absurdity of assuming that the value of every man's professional attendance is the same, and to be charged for at the same rate. Skill, experience, reputation,—all these should be worth something pecuniarily, and the public would recognize the fact if the profession did. It is recognized by the army and navy authorities of every civilized country, in the increase of rank and pay accorded to medical officers in proportion to their length of service. Again, to reckon by visits only, without regard to the varying trouble and responsibility involved in different cases, or to the ability of the patients or their friends to pay, is manifestly absurd.

In point of fact, the fee-bill, if binding at all, is so only upon the Fellows of the College of Physicians. It is practically disregarded by many of them, and indeed must be, unless those who attain success in business are willing to be overworked and underpaid. Lawyers have no such tariff; they charge what they can get,—that is, what the public consent to pay them for their services.

Let us suppose the fee-bill done away with entirely: who would be the worse off? Surely not the physician, for he knows well what his professional brethren consider the average value of their services, or he can readily find out; and he can tell what his investments in labor, time, money, and the acquisition of skill and experience have been. As surely not the public; for they must, by an inexorable law of compensation, if they want underpaid doctors, have inefficient ones. We think the results of observation in other departments of skilled labor will show that, in the long run, good work must be well paid for, or the energy and ability it demands will flow into other channels.

It is earnestly to be hoped that this futile fee-bill may be abolished altogether at no distant day.

DR. ANGUS MCLEOD, an East Cambridge physician, was arrested, December 6, for concealing a case of smallpox.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, OCTOBER 24, 1872.

(Continued from page 156.)

DR. JAMES TYSON exhibited the following specimens:—

1. *Aortic and mitral disease; perforation of one leaflet of the mitral valve.*

T. McF., shoemaker, intemperate, aged 40, single, born in Ireland, was admitted to the Philadelphia Hospital January, 1872. Parents quite healthy. Has already been in the house nine different times, exclusive of the present admission, for the same ailment. He has suffered much from inflammatory rheumatism, and at certain periods of his life had typhus and intermittent fevers. In 1860, after two severe attacks of rheumatism, he noticed a failure of strength and shortness of breath, and an inability to lean forward, run, or lift anything, without getting unpleasantly out of breath. Two years afterwards he applied for treatment at the Northern Dispensary in this city, where he was told, for the first time, that his heart was diseased. Since then the symptoms have increased in intensity. He has occasionally had swelling of the feet, knees, and hands, but no two members were ever swollen at the same time. Cough sometimes troubles him; he sleeps very well.

May 21.—On physical exploration, inspection reveals a concavity produced by depression of the lower two-thirds of the sternum and the attached costal cartilages. There is at present no undue movement of the chest. The seat of the impulse is less than an inch to the right of the nipple, where there is no marked upheaving produced. The superior border of the heart's dulness is in the fourth interspace. The right lateral border is between the middle of the sternum and its left edge, whence it extends half an inch to the left of the nipple. Inferiorly the tympany of the stomach is noted in the sixth interspace.

Auscultation reveals a double rasping murmur heard over the entire organ, but more loudly at the base.

He remained in the house during the entire summer, scarcely at all relieved by any treatment which could be suggested. For two weeks previous to his death he was the subject of an obstinate dysentery, and one week before he died there supervened an acute purpuric condition of the extremities, which made its appearance in a single night.

Post-mortem examination.—The body was œdematous throughout. There were numerous purpuric spots on the extremities, most abundant upon the hands and feet.

On section, the *pericardium* contained something more than the normal quantity of fluid. The *heart* itself was enormously hypertrophied, weighing 27 oz. when emptied of clots, and presented two opaque white patches on its exterior, one about an inch in diameter over the right ventricular surface, and a second half an inch by an inch and a half over the left ventricle, near its apex. The aortic valves were enormously thickened, the deposits on the edges of two of them having undergone calcareous change; one of the cusps was perforated at its base by an opening half an inch in diameter, the edges of which were formed by a ring of cauliflower-like deposit of calcareous matter. The mitral valves were also greatly thickened, and contained deposits on both surfaces, those on the auricular face of the valve having undergone calcareous change. The tricuspid valve was also thickened, but the pulmonary cusps were normal.

The *liver* was enlarged, weighing 4 lbs. 3½ oz.,

and was also fatty. The *spleen* was normal in size, but was somewhat nodulated in its upper extremity and presented, in this situation, an infarctus the size of a horse-chestnut, most probably the result of capillary obstruction caused by an embolus from the valves of the heart.

2. *Chronically contracted kidney.*

P. D., aged 52, a native of Ireland, and intemperate; considered himself a well man until January, 1871, for a number of years before which date he was engaged in driving a hack night and day, being often subjected to the severest exposure. At this time he was taken with a shortness of breath and a cough, notwithstanding which he continued to pursue his occupation until July of this year, when he entered the house for the first time. In April he first noticed a swelling in his feet, which gradually became worse, until his thighs and genitals became involved. He remained in the house four weeks, during which time there was apparently no improvement. Returning to his home, he continued to grow worse, and re-entered the wards early in September, when he presented œdema of the extremities, genitals, and abdomen; he had also a cough and much shortness of breath.

Examination of the urine, September 17, 1872, gave the following result:

Quantity in past twenty-four hours 30 oz.; reaction acid; sp. gr., 1020; quantity of albumen very slight. The microscope revealed granular and hyaline casts, some of which contained fragments of epithelial cells. He was ordered solution of acetate of ammonia and tr. chl. iron thrice daily, with nourishing diet and stimulants. The amount of urine passed continuing the same, cloths steeped in inf. digitalis were applied to the abdomen; for a few days the urine was augmented in daily amount, but soon fell to 25 oz. in the twenty-four hours.

October 4, 1872.—His face is swollen, and he is enormously œdematous in legs, thighs, genitals, arms, hands, and thoracic and abdominal walls. There is also ascites, and effusion into left pleuritic cavity. The lungs are also suffused with moist râles, and his dyspnœa aggravated, especially during paroxysms of coughing, when his face becomes livid. He was ordered a stimulating expectorant mixture.

October 8, 1872.—Condition not materially changed, except that he has less difficulty in breathing; respiration is, however, still labored. For the last few days he has had diarrhœa, during which the œdema has slightly decreased.

He died suddenly on the morning of October 10.

The *post-mortem examination* was made three hours after death. There was general œdematous infiltration of the connective tissues, ascites, and left hydrothorax; firm adhesion of the entire right lung to the corresponding chest-walls. The lungs were, however, normal.

The *heart* was enlarged, weighing 18 oz., its cavities dilated, and walls firmer and thicker than in health. The edges of the mitral valve were thickened, and a few small atheromatous patches were on its auricular surface. The aortic valves were unchanged, but the aorta itself was the seat of atheromatous deposit. The valves of the right cardiac cavities were unaltered.

The *liver* was small, weighing 2 lbs. 3 oz., "nutmeg" in appearance, yet very firm. The spleen was very small and contracted, weighing but 2½ oz., its trabecular tissue unusually distinct.

The *kidneys* weighed conjointly 9½ oz., and exhibited the same peculiar firmness noted in the case of the other tissues, but even more marked. The capsule was adherent, and when stripped off exposed a granular surface. On section, the appearance could scarcely be said to be other than normal, though upon fracture of the organ the granular appearance was again evident.

Remarks.—It is not unimportant to observe that the extensive dropsy so uncommon in connection with this form of Bright's disease (the contracted kidney) is accounted for in this instance, at least partially, by the cirrhotic liver also present.

3. *Cancer of cardiac and pyloric orifices of the stomach,* from H. W., aged 70, a Pennsylvanian. He has been apparently healthy, except as to occasional attacks of rheumatism, until about the middle of June, 1872, when he began to complain of a dull burning pain in the epigastrium, which continued and became worse after eating, when a sense of distention and weight was superadded. Later, he vomited his food, and complained of nausea at other times, especially in the morning before eating. Occasionally, also, he vomited small quantities of blood. His bowels were obstinately constipated, being often without a dejection for five or six days.

There was exquisite tenderness on pressure in the epigastrium, and percussion-dulness in the median line two and a half inches below the end of the ensiform cartilage, and thence towards the left to the edges of the ribs, and towards the right as far also as the edges of the ribs, but an inch lower down. There was, however, no sense of a tumor communicated on palpation.

About the 10th of September it became quite impossible for him to retain any solid food, when he was restricted to a diet of milk, of which he took a pint daily in divided portions. Thus administered, the milk was retained, and the plan was so successful that the quantity was soon increased to a quart daily. About the 6th, however, he was no longer able to retain the milk in any quantity, while he seemed to reject it, not by an act of vomiting, but by a species of regurgitation. Thenceforward emaciation progressed, and he died on October 18, 1872.

The *post-mortem examination* was made six and a half hours after death. On opening the abdomen, no visible derangement was present until the omentum was removed, when a white, glistening prominence was noted, which proved to be the pyloric end of the stomach, thickened to the extent of three-fourths of an inch in section, and for two and a half inches towards the centre of the stomach. The cardiac end was similarly involved, and to a like degree, while the body of the stomach was normal. To the naked eye the appearances were rather those of a hypertrophy of the muscular substance of the organ in these situations.

Remarks.—The regurgitation of food here noticed is probably explicable by the condition of the cardiac orifice of the organ. The temporary benefit derived from the milk-treatment is quite in accordance with recent experience in similar cases.

4. *Pneumonic phthisis of right lung; miliary tuberculosis of the left lung as a sequel.*

Susan B., unmarried, but having given birth to one child, was admitted to the Philadelphia Hospital August 8, 1872. She was previously quite healthy. In July, while very warm and menstruating, she took a cold bath. This was followed by suppression of her menses, and a "cold," from which she never recovered. She however, continued at service until a few days before admission.

When Dr. Tyson assumed charge of the wards, on September 12, 1872, she had constant high fever, hurried respiration, a hot skin, and a temperature of 103° to 104°; also an annoying cough, with tenacious dark-gray puruloid expectoration.

Physical exploration showed resonance impaired on the right side anteriorly, and in the axilla; blowing respiration over the whole of this region, with moist râles and cooing sounds in the lower part of the chest. On the left side anteriorly, and in the axilla, there seemed no deficiency in resonance, though respiration appeared harsh in these situations. The pos-

terior part of the chest was not examined, because of the great inconvenience it gave the patient.

These symptoms continued unabated until she died.

The *post-mortem examination* revealed marked thickening of the pleural covering of the *right lung*, while the organ itself was riddled from apex to base with small cavities, varying in size from that of a pea to that of an English walnut, and chiefly oval in shape.

The *left lung* was the seat of diffuse miliary tuberculosis.

REVIEWS AND BOOK NOTICES.

THE MICROSCOPE AND MICROSCOPICAL TECHNOLOGY. A Text-Book for Physicians and Students. Translated from the German by GEORGE R. CUTTER, M.D., Clinical Assistant to the New York Eye and Ear Infirmary. Wm. Wood & Co., New York, 1872. 8vo, pp. 658.

Those who are familiar with Frey's admirable manual will feel gratified to Dr. Cutter for this very readable translation, which enables our American and English students who are unacquainted with the German tongue to participate in the instructions of the renowned Zurich professor. Any attempt to criticise a text-book whose merits are so pronounced that (as we learn from the translator's preface) it has already, in the few years since its first appearance, passed through four large editions abroad, would of course be useless; and we shall therefore confine ourselves to pointing out some of the numerous excellencies and few deficiencies in the scope and character of the work.

Professor Frey commences with a clear and concise account of the theory of the microscope, its varieties, accessory apparatus, and use, which extends over about one hundred pages; after which, full and elaborate directions for preparing, staining, injecting, and mounting microscopic objects occupy a nearly equal space. The remaining portion of the volume treats of the different normal and pathological tissues, secretions, etc. of the human body, with occasional illustrations from the domain of comparative histology, when required for complete elucidation of the subject. These directions for investigation possess an especial value to the American observer, on account of the explicit manner in which are described the manifold improved methods of demonstrating the various structures in their healthy or diseased conditions, which have rendered the German pathological laboratories so famous throughout the scientific world.

The imperfections of the volume are, in the first place, that its instructions, like those of most similar manuals, are often couched in technical language, and preceded by such scanty explanation of minute difficulties (which so fatally obstruct the path of a beginner) that only advanced students can reap their full benefit. Secondly, the number of diameters which each specimen is represented as being magnified is generally left undesignated, and this neglect occurs even in Fig. 171, copied from Prof. L. Beale, who has so justly and ably advocated the importance of always specifying the amplification under which each microscopic figure is drawn. Thirdly, whilst most of the references are to German instruments, etc., and, therefore, sometimes almost useless to Americans, their value is still further impaired by the fact that no uniform standard for prices, measurements, and so forth, is adopted; the cost of various articles being given as occasion serves, in thalers, francs, pounds, or dollars, and dimensions stated in millimetres, parts of a Paris line, or subdivisions of an English inch, without any attempt at reduction. Lastly, among the minor deficiencies we note the omission of Dr. Fenwick's invaluable method for detecting lung-tissue in sputa, of which both author and editor appear to be entirely ignorant, notwithstanding it adds so much to the certainty of our diagnosis in phthisis; the absence of any drawings explanatory of the dermatophytic affections; and the less than scant justice done to our leading microscope-dealers in Philadelphia. The work is declared upon the title-page to be profusely "illustrated with 343 engravings on wood," although this seeming wealth of embellishment is to a certain extent fictitiously augmented by the somewhat ingenious and altogether economical device of making wood-cuts 105, 117, 204, and 211 do duty a second time over slightly different letter-press, as Figs. 326 241, 228, and 248 respectively.

To sum up all, we think that this handsome volume is one which the advanced student and working microscopist cannot afford to do without; but, at the same time, we fear that the novice who consults it as a guide in his elementary studies will often turn from its pages with disappointment and regret.

ON CEREBRIA AND OTHER DISEASES OF THE BRAIN. By CHARLES ELAM, M.D. Lond., etc. 8vo, pp. 142. Philadelphia, Lindsay & Blakiston, 1872.

Dr. Elam states that cerebritis uncomplicated with meningitis is a disease "unrecognized and undescribed," some authors even doubting its existence. In fact, all inflammatory affections of the brain have, in the opinion of our author, failed to receive from recent writers the attention they deserve: he has therefore written this little work with the object of giving his own experience in regard to them.

The chapter on tubercular meningitis is an example of the manner in which the book is written. It consists of a single case of the disease, in which recovery took place, and of another case which was not meningitis at all,—simply an instance of gastric disturbance with brain-symptoms.

In regard to cerebritis unaccompanied by meningitis, there is no doubt that Niemeyer was aware of its existence, although he does not describe it at length, and speaks of all forms of encephalitis as being rare; and Aitken, in his "Practice of Medicine," says, "While dissection demonstrates the fact that inflammation may exist either in the brain alone or in the membranes alone, yet, clinically, it is found that meningitis generally complicates cerebritis." Reynolds believes that inflammation of the brain is never met with without inflammation of its membranes.

Cerebria is defined by the author as "a spontaneous, acute, general inflammation of the substance of the brain, uncomplicated with meningitis," and he has given this name in contradistinction to cerebritis, which he says has so long been described as a compound of inflammation of the brain and its membranes.

The account of the disease appears to be based on but three cases; at least there is no reference to any others, and its most marked characteristics are said to be its uniform beginning and end. It begins with vomiting, and ends with death. In no instance was there any evidence of suppuration. In the first case, the only departure from health was the brain-substance being "closely dotted with red points, the gray matter darker than usual, and the white slightly rosy." In the second, the brain was so much softened that it could not support its own weight; but the microscope showed no pus. The post-mortem, in the third case, was similar to that in the first. In neither of these was any microscopic examination made.

The observations on the study of cerebral affections, and on the circulation of the brain, are of interest, and show considerable original thought; but our limited space will not allow us to discuss them.

JOURNAL OF THE GYNÆCOLOGICAL SOCIETY OF BOSTON. Monthly. Edited by WINSLOW LEWIS, M.D., HORATIO R. STORER, M.D., and GEORGE H. BIXBY, M.D. Vol. vi., January to July, 1872, pp. x., 480.

This journal is devoted to the consideration of the diseases peculiar to women. It includes reports of the meetings of the Gynæcological Society of Boston and the Obstetrical Society of Philadelphia; the latter extracted from the *American Journal of Obstetrics*. A large number of the articles have been contributed by members of the first-named society, but a welcome has been extended to every communication treating of subjects within the scope of the society. Some of these articles are of great practical value, among which we may mention a case of hysterical insanity depending upon cystic disease of the ovaries and extensive inflammation of the cellular tissue of the pelvis. The only symptoms during life were arrest of the menstrual secretion, and a phantom tumor; the latter was for a long time considered to be hydatids of the liver. The true state of the case was ascertained only by autopsy.

A history of Uretero-Uterine Fistula, by Drs. Wilhelm Alex. Freund and Ludwig Joseph, of Breslau, translated from the German by Mary Safford, (*homœopathic*) medical student at Breslau, contains more information on this form of fistula than can be found in any other work.

The society, in compliance with an invitation received from Dr. Henry A. Martin, paid a visit to the farm of the latter at Boston Highlands.

Fifty pages of the journal are given to a description of the methods, results, and comparative effects of animal virus, first remove, and long humanized, with respect to inflammatory consequences, eruptions, the danger of conveying blood-poisons, etc. Dr. Martin's virus can be obtained only from himself, as he supplies no agents or dealers with it.

BOOKS AND PAMPHLETS RECEIVED.

Outlines of Surgery and Surgical Pathology, including the Diagnosis and Treatment of Obscure and Urgent Cases, etc. By F. Le Gros Clark, F.R.S., etc. Second Edition. Crown 8vo, pp. 350. Philadelphia, Lindsay & Blakiston, 1872.

What Physiological Value has Phosphorus as an Organismal Element? An Essay to which was awarded the Prize of the American Medical Association for 1872. By Samuel R. Percy, M.D., etc. 8vo, pp. 56. Collins, Printer.

Nebulæ, Comets, Meteoric Showers, and the Revelations of the Spectroscope regarding them. By Prof. H. Schellen and others. Coral and Coral Islands. By Prof. J. D. Dana, of Yale College. (Half-Hour Recreations in Popular Science, No. 5.) Small 8vo, pp. 47. Boston, Estes & Lauriat, 1872.

Annual Report of the Surgeon-General of the United States Army, 1872.

GLEANINGS FROM OUR EXCHANGES.

TRAUMATIC ICTERUS.—M. Verneuil (*Le Mouvement Médical*, Sept. 14, 1872) recently announced to the Académie de Médecine the following propositions:

1. Icterus may be developed as a consequence of a traumatic lesion, an accidental wound, or a surgical operation, whether affecting the liver or some organ more or less remote.

2. In the first case there is traumatic icterus properly so called, or direct; in the second case it is indirect.

3. This latter form comprises two varieties, clearly distinct in causes, course, prognosis, and pathogenesis.

4. The first variety, *pyæmic* icterus, is a symptom of purulent infection; it is due to septicæmic alteration of the blood, with or without the occurrence of metastasis. The second variety, *reflex* icterus, not pyæmic, is doubtless owing to perverted innervation.

5. Neither direct traumatic icterus nor the pyæmic variety implies any previous change in the liver. Organic lesion of this gland seems, on the contrary, to be a predisposing condition necessary to the production of the reflex variety.

6. The diagnosis between these three forms is generally easy. For the first, it suffices to recognize the lesion, direct or indirect, of the liver; for the second, we have the whole train of pyæmic phenomena; for the third, we must investigate, above all, the circulatory organs and the thermometric changes.

7. Although generally grave, the prognosis of icterus occurring consecutively to lesions varies much, according to their nature and complications; the severity of the direct traumatic form depends upon the effect of the primary cause upon the gland. Pyæmic icterus is, and always must be, a very serious affair, like the general disorder of which it is merely a symptom. Reflex icterus is comparatively innocent, except where the previous disorder is of a nature necessarily fatal.

8. Reflex icterus does not seem to modify unfavorably the process of repair of the injury causing it.

9. This condition belongs to the great class of "deutéropathies traumatiques éloignées" (remote traumatic secondary lesions). It constitutes one of their rarest forms. Judging from the meagreness of the reports concerning it, its history can only be completely made out from the results of fresh investigation.

DETERMINATION OF THE AMOUNT OF SUGAR IN DIABETIC URINE BY THE DIFFERENCE IN THE SPECIFIC GRAVITY BEFORE AND AFTER FERMENTATION (W. Manassëin, *Deutsch. Archiv für Klin. Med.*, Bd. x., S. 73–88; quoted from the *Central-Blatt für Med. Wiss.*, No. 35, 1872).—The experiments of Manassëin corroborate the statements of Roberts (Memoirs of the Manchester Lit. and Phil. Soc., 1861), that the amount of sugar in diabetic urine may be determined in the manner indicated by the title of this article. Roberts found that for every difference of 0.001 in the specific gravity before and after the process of fermentation, we must use a multiplier, 0.23, in order to obtain the percentage of sugar in the urine. Manassëin suggests 0.219 as a multiplier, instead of which, however, he prefers the use of a divisor, 4.56, for the calculation of the amount of sugar. With this he divides the difference in the specific gravity multiplied by 1000, and obtains the percentage of sugar directly. For example, let the

Specific gravity before fermentation be . .	1.0298
" " after " " . .	1.0055
The difference	0.0243

Multiply this by 1000, and

Divide by . . . $4.56 = \frac{24.3}{4.56} = 5.33$,

the percentage of sugar.

The temperature which most speedily accomplishes the fermentation (usually in twenty-four hours) is 20° to 24° C.

The cheapness of this process is one of its advantages, but the length of time, eighteen to twenty-four hours, required for its completion is objectionable in many cases. The method is applicable to diabetic

urine largely diluted with water; hence it may be put down among the delicate tests for sugar in urine.

Treatment of Fissure of the Anus (*Med. Times and Gazette*, June 8, 1872).—A lecture on this subject, by Dr. Dolbeau, is reported by Dr. Osborne Powell. He observes that each evacuation of the bowels is accompanied by a feeling of something cracking, followed by intense pain; nevertheless, in many instances no fissure can be found, even after the most careful and minute inspection. He consequently regards it as of the nature of neuralgia. It commonly occurs between the ages of eighteen and thirty, and most frequently in women. In the treatment the first thing to do is to abolish the muscular element. Récamier, whose name is inseparable from the history of this malady, well comprehended that the fissural lesion is an element without importance, and he cured several patients by what he termed *cadenced massage*. Chloroform was then unknown. He had the patient held by some strong assistants, and he introduced first one finger, then another, and so on, until he had passed his whole hand into the rectum; he then closed his fist, and drew his hand from the intestine. This was a most rational operation, and the employment of chloroform in the present day permits us to practise it in a much less barbarous manner. Thus, the patient being put under the influence of chloroform, the surgeon introduces his two thumbs into the rectum, and endeavors to bring them in contact with the two ischia; at that moment one hears a strong cracking noise, and the operation is finished. The first stool after the operation is painful, but this pain is simply the result of the region being contused, and does not in the least resemble the pain which characterized the spasmodic attacks. The succeeding stools are without any pain, and the cure is assured.

Fischl on Pneumonia Migrans (*Prager Vierteljahrsschr.*, Bd. 114, S. 112–123).—Schiffer calls attention to this article, in a review in the *Central-Blatt für Mediz. Wiss.*, No. 35, 1872. It appears that up to the present time only Waldenburg and Wiegand have contributed accounts of this rare affection; the former relating one case, and the latter two cases. The chief characteristic of the disease consists in many parts of the lung being successively attacked by the croupous process, the portions first attacked healing as the disease advances to the healthy parts.

The course of this disease may be anatomically continuous, as in the case of Waldenburg, where the disease began as a pneumonia dextra inferior, passed upwards through the entire right lung, attacked the apex of the left lung, and by steady advances reached the base of the lung on the left side. This course was passed over *twice* by the disease in the same individual. On the other hand, there may be no such regularity in the course pursued by the disease, and the same lung may be attacked first in one part and then in another. In any event the disorder is very tedious, and, as Waldenburg has observed, highly suggestive of erysipelas migrans. The case related by Fischl, of a strong woman, 36 years old, showed the last-mentioned characteristics. When this patient was first seen, fourteen days after the beginning of the disease, the infiltration was discovered in the left lung, upper part; two days later the infiltration was found at the base of the right lung; a few days subsequent to this the disease was found in the infraclavicular region, left side, etc. Twice, parts were attacked which had been already affected. The infiltrations were quickly developed, without initial chills, and were very quickly absorbed. The disease lasted six weeks, with continuous fever, and the sputa continued of a catarrhal nature during the entire course of the affection, with at no time the appearance of any blood in them.

Treatment of Pemphigus.—Mr. Hillairet (*Le Mouvement Medical*, Sept. 14, 1872), reasoning from the analogy between this disease and burns of the second degree, believes that a similar treatment—dressing with cotton-batting (*ouate*) and lime-water liniment—will be found to answer well in both.

MISCELLANY.

Another Quadruple Amputation.—In our issue for Nov. 16 (Miscellany, p. 110) we quoted from a foreign exchange an account of a quadruple amputation by Dr. Begg, of Dundee, which was said to be the only one on record in which all four extremities had been removed. Dr. Woodhull, U.S.A., has been kind enough to call our attention to a case detailed in Circular No. 3, U.S.A. War Department, S. G. O. (Case DCXII., p. 216), in which "a similar set of operations was performed by Acting Assistant-Surgeon Alfred Muller, at Fort Ridgely, Minnesota, Jan. 13, 1866. This antedates the Scotch operation, and the patient appears to have been in a more deplorable condition—if this were possible—than the other, in view of the condition of the nose and patellæ." The operation in Dr. Muller's case was done for frost-bite, on the nineteenth day; the tip of the nose had perished, and the patellæ subsequently exfoliated. "The probable inability to use artificial limbs is a misfortune that gives to the American a very different termination from that of the British case. This same case—the American—was also briefly published in 1867, on pp. 522–3 of the Catalogue of the Surgical Section of the Army Medical Museum."

Jewish Mortality.—According to Dr. Stallard's work on "London Pauperism," the mortality of Jewish children under five years of age is much less than among other children. There is no hereditary syphilis, and scarcely any scrofula. The mother engages in no employment that takes her away from her children. From one year to five the Jews lose only ten per cent., while the Christians lose fourteen. The average life of the Christian is thirty-seven years,—of the Jew, forty-nine years. Beyond sixty years, only a quarter of a Christian population will be alive, but a quarter of a Jewish population will exceed seventy-one years. In Prussia the Christian population requires fifty-one years to double itself, but the Jewish population will double itself in forty-one years.

Prizes.—The Royal Institution of Science, Literature, and Arts, in Venice, offers a medal of the value of three thousand francs (£120), to be awarded in 1874 to the author of the best essay on the following subject: "The advantages derived by the medical sciences, especially physiology and pathology, from modern discoveries in physics and chemistry; with a retrospective view of the systems which prevailed in medicine in past times." The competition is open to foreigners; and the essays may be written in French.

A Good Example.—It will be remembered that a few weeks since the Reverend Canon Charles Kings-

ley, in his presidential address to the Birmingham Midland Institute, recommended with great earnestness and eloquence the teaching of the art, and also the encouragement of the practice, of preserving health. We have just learned from the Birmingham papers that this good advice has been followed by an anonymous benefactor investing £2500 to establish a professorship on that subject.

THE Medical Society of London offers the prize of the Fothergillian gold medal for 1873, of the value of twenty guineas, for the best essay on cancer. The subject for 1874 is the therapeutic means for the relief of pain. The prize is open for universal competition. Essays, *not in the handwriting of the author*, must be forwarded to the Society's rooms on or before the 1st of November next preceding the 8th of March in the years 1873 and 1874 respectively.

AT a meeting of the Medical Society of Victoria held in June last, the following collection, taken from the stomach of a lunatic upon whom a post-mortem examination had been made, was exhibited :—Twenty-five pebbles, sixteen pieces of glass, twelve nails, one screw, two bones, a button, five bits of tin, a peach-stone, six fragments of a pipe-stem, and a whole cutty pipe. The cutty pipe was found fixed in the ileo-cæcal valve.

MEDICAL MICROSCOPICAL SOCIETY.—A new society has been proposed, and is probably by this time in operation, in London, with the above name. A writer in the *Medical Times and Gazette* says, and we should think justly, that it would have been better had the medical members of the already existing Microscopical Society constituted themselves into a medical section.

ANOTHER NEW JOURNAL.—The prospectus of a new monthly, to be called the *Central New York Medical Journal*, has been issued by Dr. Ely Van De Warker, of Syracuse, N. Y. It is to be published subject to the approval of the Medical Association of Central New York, upon a guarantee of a subscription-list of three hundred.

A CAUTION.—A surgeon of Leominster, England, Mr. David Davies, has been fined £1 and costs for having twice kissed a lady who came to consult him as to the beating of her heart, which, he declared, beat "naturally enough."

ACCORDING to the census of the German empire, which was taken in December last, the total population (including Alsace and Lorraine) amounts to 41,058,000. The females exceed the males in the empire by no less than 768,000.

THE number of paupers relieved in England and Wales at the end of July last was 10.6 per cent. less than at the corresponding period of the year 1871.

THE Augusta Medical College of Georgia has been made the Medical Department of the University of Georgia ; a compliment well bestowed and fully merited.

DR. W. R. GIBBES, of Columbia, has been elected Professor of Anatomy and Surgery in the University of South Carolina, in place of Dr. Darby, resigned.

DR. GEORGE COCHRAN, health officer of Brooklyn, died of congestion of the lungs, at his residence in that city, on the 19th ult.

DR. WARREN STONE, a distinguished surgeon of New Orleans, died in that city on the 6th inst., at the age of sixty-five.

DR. SAMUEL WILLEY, one of the oldest practitioners in St. Paul, Minnesota, died recently.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending Dec. 7, 1872, were 302 ; 165 adults, and 137 minors. 23 were of bodies brought from the country ; making the mortality of the city 279. Among the causes of death were :

Consumption of the Lungs	39
Other Diseases of the Respiratory Organs	41
Diseases of the Circulatory Apparatus	20
Diseases of the Brain and Nervous System	52
Diseases of the Digestive Apparatus	16
Zymotic Diseases (Scarlet Fever 5, Hooping-Cough 6)	17
Typhoid Fever	6
Casualties	8
Cancer	9
Debility (including "Inanition" and "Marasmus")	31
Still-born	26
Old Age	14

(The interments reported for the week ending Dec. 9, 1871, were 470.)

THE meteorological record kept at the Pennsylvania Hospital was as follows :

	THERMOMETER.		BAROMETER.
	Max.	Min.	(2 P.M.)
Dec. 1	34.5°	18.0°	30.24 in.
" 2	48.5	36.5	29.99 in.
" 3	45.0	35.0	30.20 in.
" 4	40.0	35.0	30.39 in.
" 5	38.0	33.5	30.36 in.
" 6	45.0	28.5	30.39 in.
" 7	39.0	32.5	30.37 in.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM NOVEMBER 26, 1872, TO DECEMBER 2, 1872, INCLUSIVE.

ALEXANDER, R. H., SURGEON.—Assigned to duty as Post-Surgeon at Fort Vancouver, Washington Territory ; relieving Surgeon J. H. Bill, U.S A. S. O. 154, Department of the Columbia, Nov. 14, 1872.

JAQUETT, G. P., ASSISTANT-SURGEON.—Granted leave of absence for twelve days. S. O. 208, Department of the Platte, Nov. 22, 1872.

HUNTINGTON, D. L., ASSISTANT-SURGEON.—Assigned to duty at Camp Harney, Oregon, but, owing to lateness of season, to proceed to Fort Stevens, Oregon, for temporary duty at that post S. O. 155, Department of the Columbia, Nov. 15, 1872.

PHILLIPS, H. J., ASSISTANT-SURGEON.—Granted leave of absence for thirty days, and leave to go beyond the limits of this Department. S. O. 153, Department of the Columbia, Nov. 13, 1872.

STYER, CHARLES, ASSISTANT-SURGEON.—Granted leave of absence for four months from December 1, 1872. S. O. 309, War Department, A. G. O., Nov. 29, 1872.

WEISEL, D., ASSISTANT-SURGEON.—Granted leave of absence for thirty days. S. O. 306, War Department, A. G. O., Nov. 26, 1872.

MATTHEWS, WASHINGTON, ASSISTANT-SURGEON.—Assigned to temporary duty at David's Island, N Y. Harbor. S. O. 228, Department of the East, Nov. 25, 1872.

PHILADELPHIA MEDICAL TIMES.

SATURDAY, DECEMBER 21, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURES ON PROLAPSE OF THE WOMB.

BY WILLIAM GOODELL, M.D.,

Physician-in-Charge of the Preston Retreat; Clinical Lecturer on the Diseases of Women and Children in the University of Pennsylvania.

LECTURE II.

(Continued from page 162.)

GRANTING, then, that this elongation arises in the main from traction, and not primarily from any constructive energy inherent in the cervix; what are our resources for its cure? Could I put this woman to bed for a few weeks, and thus relieve the cervix from its own dead weight and from that of the vagina and bladder, it would shrink back very materially, but not to the standard length of the healthy womb. It would act, as I have before said, precisely like an over-stretched rubber band. I might then adjust some suitable pessary which would keep the prolapsing organs in their proper positions. Unfortunately, the poverty of this class of patients renders such a treatment inadmissible. At best, the womb is too ductile, the vagina and perineum too lax, even when contracted by appropriate operations, to render this treatment other than tedious and unsatisfactory.

The desideratum here is something that can furnish a support to the unstable pelvic organs, and, at the same time, consolidate the ductile womb by giving a fillip to the now dormant process of involution. Both indications are often met by the mere amputation of the vaginal portion of the cervix, although in bad cases the former may further demand the constriction of the vulval opening. From a misconception of the nature of this disorder, Huguier recommends an unnecessarily severe and dangerous operation, by which the whole vaginal portion is removed, and with it a conical core of the supra-vaginal portion. You will naturally ask, "How can the removal of an infra-vaginal slice cure a supra-glandular elongation measuring three or four inches?" I shall reply, first, by two illustrations: after the ablation of a uterine polypus, its pedicle, however long and broad, will disappear; an elongation of the uvula is curable by snipping off merely its tip. In the second place, the hemorrhage during the operation, by depleting the womb, causes shrinkage; the rest in bed furthers this contraction; whilst the prolonged suppuration necessary for the repair of an open wound sets up so alterative an action as will carry out the process of shortening and finally consolidate the whole uterine body. Once more, this operation lessens the weight of the cervix, and establishes a retrogressive metamorphosis of the subinvoluted vagina and of its thickened mucous investment, giving, thereby, tonicity and stability to those parts.

One danger attaching to this operation is that of hemorrhage, but with care this can be avoided. Such accidents as peri- and para-metritis, tetanus, and septicæmia will occasionally happen, but not with a frequency greater than in any other surgical operations upon the cervix. To avoid the loss of blood, and to obtain a deeply granulating wound, the amputation is usually made with the chain- or wire-écraseur, or by the galvano-caustic loop. But, whatever the instrument, the operation is always attended with the risk of invading the bladder and especially the retro-uterine pouch. Hence, I should advise you, whenever you can closely watch your patient, to use the knife or the scissors. For, thereby, not only can you remove with greater safety a larger slice of the cervix, but also can, in case of this accident, bring together, by metallic sutures, the cleanly-cut edges of the vesical or peritoneal wound. Whereas no union would be likely to take place were the edges crushed by the écraseur or seared by the galvano-cautery. This mishap has happened to the most skilful operator; but, if every case has been reported, no great fatality attends it. Whenever amputation with a cutting instrument is resorted to, it will be safer first to transfix the cervix, as high up as prudent, with a long straight needle; then to place above this, as a tourniquet, the loop of an écraseur, and, finally, to slice off all that portion of the cervix on its distal side, making the incision between it and the needle. If, upon loosening the loop, any smart bleeding occurs, you may either sear the wound with the hot iron, or plug up the vagina; for, to catch up and tie a vessel in a hypertrophied cervix is no easy task. The only sure way of using the ligature is to transfix deeply each bleeding point with a curved pin, and then to ligate under it the raised-up flesh *en masse;* the pin being left *in situ* for several days.

I have described this operation somewhat fully, because, although it offers several advantages, I shall not perform it this morning, but shall use the wire-écraseur. My reasons for this seeming inconsistency are, that the excessive heat of the weather forbids the use of the tampon except as a sheer necessity, and that I shall not to-day be within call should a secondary hemorrhage take place. After placing our patient in the lithotomy position, I first catch up with a forceps the cluster of vegetations dangling from the meatus of the urethra, and snip off its base with the scissors. To prevent its otherwise sure return, I rub the raw surface with the frayed end of a match moistened with fuming nitric acid, and with a little olive oil decompose any excess of the acid. I next draw off the urine, and at the same time measure, with the catheter, the depth of the vesical pouch, and also sound the bladder for stone. In order to make myself easy on the score of wounding the bladder, I shall follow Huguier's example, and explore that organ with my finger. By gently opening the blades of a dressing-forceps in the urethra, I have, in a few minutes' time, so dilated this short and elastic canal that it will now permit me to coax in my little finger. Note how

low its tip reaches,—certainly not more than half an inch from the apex of the everted cervix. So far, good! We have accurately defined the lower boundary-line of the bladder; but very unfortunately there are no diagnostic criteria for ascertaining the depth of the retro-uterine fold. Usually, this fold does not descend so low as the pouch of the bladder; but this rule is not invariable, and the peritoneal cavity will occasionally be opened in spite of the greatest care. Guided by the tip of my little finger inside of the bladder, I now transfix the cervix antero-posteriorly by a sharply pointed skewer, entering it just below the lower margin of the bladder, and slanting it upward and backward so that its point may emerge somewhat higher up on the opposite side. The bladder is, therefore, safe, whilst the pouch of the rectum is so small, and so far from the course of the skewer, as also to be out of harm's way. Could this be affirmed as positively of the peritoneal fold, the operation of itself would be without any hazard whatever; but, with regard to that, much must be left to chance. It remains now to adjust the wire loop of the écraseur, and this is done by slipping it over the cervix and close up to the distal side of the skewer. I give a few turns of the screw; and now see how bloodlessly the whole vaginal portion of the cervix has been amputated.

Some of you may perhaps wonder why the écraseur was not used without the skewer. There is a good reason for this: Whenever the wire or the chain of an écraseur begins to bite into living flesh, it tends not only to slip in the direction of least resistance, but also to drag into its loop the more relaxed tissues of that side. Now, since the vaginal portion of the cervix is clubbed and tuberous, the direction of least resistance and the looser tissues lie above the surgical neck. Hence, unless guarded by the skewer, the loop might slip upwards and pinch off a piece of the bladder or of the peritoneum.

Our patient will now be put to bed, where she must stay for at least two weeks. Should secondary hemorrhage take place—which is improbable—I shall be forced either to sear the raw surface with the hot iron, or to plug up the vagina. As soon as pus begins to form, the vagina will be washed out several times a day with carbolized injections. If left to itself, the wound will not cicatrize under four weeks; but the healing process can be hastened by an occasional touch with the nitrate of silver.

This operation will most likely result in our patient's cure, so far as the elongation of the cervix is concerned,—that is to say, after the lapse of five or six weeks her uterine cavity will not measure over three inches in length. But it may not prevent more or less prolapse of the relaxed vagina and bladder, and another operation will perhaps be needed to repair the torn perineum. Some surgeons advise in every case an operation either for contracting or shortening the vaginal canal or for narrowing its outlet; but this is by no means necessary. Whenever the fundus has barely sagged down, I believe that, whatever the degree of cervical elongation, the removal of the vaginal portion will alone effect a cure in the majority of cases. For the same stays which have hitherto sustained the fundus will afterwards, through the medium of the now contracted and consolidated cervix, sustain also the vagina and bladder. On the other hand, whenever the fundus is found to be displaced to any marked degree, and especially when wholly extruded,—as in Fig. 3,—then, in addition to the amputation of the cervix it will be necessary either to lengthen the perineum and at the same time narrow the outlet by the operation of episio-perineorrhaphy; or to perform some one of those operations for contracting the vaginal canal which you will find described in Dr. T. G. Thomas's excellent work.

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A Lumbricus discharged through an Abscess about the Hip-joint—Recovery (*Lancet*, Nov. 30, 1872).—The following curious case occurred in the Mansfield Workhouse Infirmary in May last:

J. W., aged thirteen, was suffering from strumous disease of the hip-joint, but able to get about on crutches. The usual abscesses kept forming and bursting about the joint: one abscess, however, after bursting, discharged as part of its contents a large lumbricus, fully eighteen inches long, and coiled upon itself. How did it get there? At any rate, the wound healed rapidly, and the boy's health improved considerably.

ORIGINAL COMMUNICATIONS.

PARESIS.

Read before the Northern Medical Association of Philadelphia, September 27, 1872.

BY ANDREW K. MINICH, M.D.

THE term paresis is from the Greek παρημι—"I relax," and was introduced by Saloman, a Swede, as a substitute for "general incomplete paralysis of the insane,"—a very unwieldy term, and only partially expressive of the disease under consideration.

Since the days of Calmeil, one of the earliest writers on paresis, it has been recognized as existing in three distinct stages. The symptoms in the first stage are various, and chiefly mental.

There is often a disposition to wander from home, to neglect every-day duties, and to commit petty thefts. Generally there is a change in the morals of the patient; a religious man may become profane, and *vice versâ*. Undue importance is attached by the patients to themselves. They imagine they have become wealthy, hold honorable positions, and express determinations to erect churches, colleges, establish new lines of railroads, or project other schemes of great magnitude. The voice in this stage is changed to a slight stutter or stammer.

The more marked symptoms in the second stage are disturbed locomotion and difficult articulation. The walk in this stage is peculiar. Dr. Sankey has well observed "that there is in health a kind of expression in a person's gait, from which we may almost divine what kind of errand or business a man is upon." A man walking for exercise has a gait differing from one walking to attend to business. The two chums, with arms hooked, as they saunter along, contrast in a marked manner with the excited broker on Wall Street. The gait of a person with paresis is that of a man walking "without a definite object;" and later in the disease, walking becomes more a "matter of business." The feet are raised but slightly, are widely separated, and fall flat upon the floor. His arms are to him what the balancing-rod is to the tight-rope walker,—a means of maintaining his equilibrium. All the muscles seem affected. Any act requiring muscular interference is attended by phenomena due to a want of harmony in their action. To compare the movements and actions of a paretic to a drunken man would not be amiss, save that the paretic is cautious and deliberate, the drunkard "reckless and garrulous." Later in this stage, walking is very difficult, and, from the labor spent upon its performance, a looker-on might well surmise that the performer was making it a specialty. The articulation is drawling and difficult, often the syllables are run into each other, and mumbling takes the place of articulate sounds. Twitching of the muscles around the mouth is common. The tongue when protruded is very tremulous, and is quickly drawn back into the mouth, in spite of urgent requests to the contrary. Grinding of the teeth is frequently indulged in,—a most unpleasant symptom to those within hearing-distance. It grates sufficiently hard upon the ear to have such a symptom show itself in a bedridden patient, but to see and hear a man, with a confused stare, with reason dethroned, wandering around grinding his teeth simultaneously with every short step he takes, is almost beyond endurance. The intellectual, moral, and motor faculties are all more or less influenced. The senses of touch and taste are impaired to a more marked degree. If a paretic is asked concerning health, the reply generally will be, "first-rate," "bully," "beautiful," or some other brief expression. I would lay special stress upon the first of these answers, for almost invariably he will be "first-rate." The conversation of the paretic in this stage, as well as in the first, is not disconnected. Fixed delusion is very rare. His ideas bear the impress of change; they are not fixed like those of the monomaniac; *now* he may be worth a hundred thousand dollars, and cashier of some bank, and one hour hence be a millionaire and chief executive of the nation. He grows *richer*, but never *poorer*. "Excelsior" seems to be his motto. The symptoms, then, in this stage are, —a want of power to control perfectly the motor, intellectual, and moral faculties.

The third stage manifests its advent by dementia, and inability to stand upright or to execute any movement requiring the use of more than a few muscles. This muscular feebleness is more marked in the morning. In this stage the utterance is thick, and often unintelligible. The muscles are constantly twitching. The knees of the patient when sitting shake like those of a man suffering from a chill. His teeth chatter, he looks cold, although he tells you that he is "first-rate." Urine and fæces are passed apparently unconsciously. The urine in all the cases that I have observed was extremely phosphatic, not alone in this stage, but also in the second, although somewhat less in the latter. The temperature, according to Mr. Dodge, resident student at the Philadelphia Hospital, who carefully observed it at my request, was found to vary from one-half to one degree, according to the time of day. In the morning it was, in confirmed cases, one hundred, to one hundred and five-tenths degrees. In the evening the mercury invariably rose to one hundred and one degrees. The appetite is good, almost voracious, up to the time of dissolution. This, no doubt, assists in prolonging the life of the patient when to the observer death seems imminent. I saw poor John Ambrose, a fine minstrel, whose voice once charmed enthusiastic audiences, literally, like Herod of old, eaten by worms, numbers of which, thick and fat, crawled from his anus and large putrefying burrowing sores. He was a mass of rottenness when death entered his chamber. He partook of a hearty breakfast but a few hours beforehand.

Picking at the bedclothes, and tearing them into shreds with hands and teeth, afford hours of employment to the bedridden paretic. Irritation applied to the soles of the feet produces immediate reflex action. Epilepsy and epileptiform convulsions often occur. Sometimes the patient is seized by apoplexy: indeed, not a few meet their death in this way.

Bed-sores are prone to occur in this stage, their formation being due to the patient's continued supine position, and to the frequent presence of irritating matter. The symptoms then characteristic of paresis are, mental derangement, difficult articulation, and disturbed locomotion.

The cause of this strange malady is still wrapped in mystery. Excess in some form upon the part of the patient, at some period of life, no doubt, lies at the bottom of this disease, as of so many others. The histories of cases confirm this belief. Medical science cannot, however, explain why it is that one person using alcoholic drinks as a beverage will, as a consequence, die of a cirrhosed liver, and another of a cirrhosed brain.

The diagnosis of paresis is not difficult. It may, however, be confounded with muscular atrophy, lead- and mercurial palsy, chronic alcoholism, and certain cases of spinal paralysis. It differs from general muscular atrophy in this, that the latter is free from mental derangement. Symptoms of mental derangement, however, might occur in a case of muscular atrophy. In such a case the peculiar form of insanity in paresis, and the condition of the muscles, would serve to distinguish the two affections. Lead- and mercurial palsy are less likely to be confounded with paresis. Lead-palsy manifests itself more locally. The imperfect locomotion is more circumscribed. The wrists are chiefly affected, and the muscles of the affected parts become wasted. The condition of the gums and the absence of delirium in lead-palsy would also serve as distinctive features. Mercurial palsy can also very readily be distinguished. The peculiar trembling of the hand does not occur in paresis, neither is there mental derangement in mercurial palsy. Chronic alcoholism, the result of an abuse of alcoholic drinks, in which the motor and mental functions are affected, is more likely to be mistaken for this disease by a casual observer. This, however, is only true of decided cases of a chronic nature. They present distinctive characteristics. According to M. Thomeuf, the form of mental symptoms usually presented in alcoholism "is a kind of melancholia, with exaggerated fears, frights, delusions of being followed or watched, or of being accused of guilt. The paretic is never afraid, is not melancholy, generally entertains grand ideas, and is never unwell." All those that came under our own observation confirm this statement of Thomeuf. All would express themselves as being "first-rate," and this in tones, to use the words of Dr. Bucknill, "in which could be detected the signs of incurable disease." The appetite in alcoholism is deficient; that of the paretic can scarcely be appeased. Epileptic and epileptiform convulsions occur in paresis; delirium tremens in alcoholism. The latter is curable; the paretic always dies. Certain cases of spinal disease in which the paralysis is more or less general may be complicated with delirium, and thus be mistaken for paresis. The history of the case, the condition of the spinal cord, and the nature of the delirium would serve to point out the true diagnosis.

The pathology of this strange malady has been a fruitful source of discussion in later times. Observers do not agree as to its nosological position. Some view it as a form of mania upon which are engrafted paretic symptoms. This view is refuted by the fact that symptoms of paresis never occur in cases of chronic mania. Others maintain that paresis may exist without paralytic manifestations, and recognize it by the name of "ambitious mania." Ambitious mania, though it resembles paresis in the character of its delusions, is a separate affection. Paresis is ambitious mania, but it is something more. We have seen cases of chronic mania, of simple insanity, without any apparent physical disturbance, that even now pace the wards and strut along the corridors of the Insane Department of Blockley Hospital, whose imagination knows no limit. One sports with millions, another is the Saviour of the world, while several proudly march along, conscious that the world recognizes them as ruling monarchs. The majority of observers, however, look upon paresis as a separate affection,—a disease *per se*.

It presents characteristics similar to other affections. It is influenced by locality. Dr. Grey makes mention of the fact that in the Edinburgh Asylum there are usually to be found from twenty to twenty-five cases, while Montrose Asylum, about twenty-five miles distant, and containing about three hundred patients, has none. The disease is more prevalent in the eastern and northern parts of America than in the southern and western. Males are much more subject to paresis than females. Statistics prove the proportion to be about seven of the former to one of the latter. Age exerts an influence. Most patients are between the ages of thirty and forty years. Cases occur occasionally, however, to prove that neither the young nor aged are wholly exempt. All paretics are insane. Insanity is one of the principal symptoms. This mental derangement is manifested by an exalted imagination,—very rarely presenting itself in a different form. Respecting the pathology of paresis, some view it as an inflammation. M. Parchappe says, "all facts afforded by pathological research agree in confirming the inflammatory nature of the characteristic lesion of the cortical substance of the brain." M. Belhomme expresses a belief that "paresis is an encephalitis of a peculiar kind."

The post-mortem appearances are not constant in every respect. Sometimes there is softening, sometimes the brain is abnormally firm. This difference is probably due to the comparative duration of the disease. The arachnoid and pia mater generally present traces of inflammatory change. The microscope has detected in most cases a varicose condition of the capillary vessels of the cortical substance, and also a marked increase of its connective tissue. This increase of the connective tissue of the cortical substance is the most constant of the morbid conditions. It is, pathologically speaking, a cirrhosis of the cortical portion of the brain, the result of a slow inflammation. There is no doubt that the disease is cerebral. The impaired locomotion is not owing to muscular paralysis, but to something interfering with co-ordinate

action. The constantly cheerful answer which the patient ever gives in regard to his or her health is due to one of two conditions, or to both. It may be but the result of a feeble conception. The brain in its diseased condition, with its cells compressed by the superabundant connective tissue, may be incapable of taking cognizance of the body's condition. The fault does not seem to be in the afferent or efferent nerves. They faithfully transmit impressions, as is shown by the immediate reflex movements that take place in response to any irritation applied to the surface of the body. It may be that even though the patient's brain is capable of appreciating pain and poverty with their accompanying shadows, yet his peculiar form of insanity, his ambitious mania, his radiant line of thought, will scatter those shadows as the wind scatters the leaves of autumn. His judgment has fled, and as his idea of wealth and splendor is not corrected by his bed of straw and lonely cell, in like manner his idea of personal comfort and perfect health may not be corrected by painful sores and fatal disease.

The prognosis is always unfavorable. A few cases of recovery are reported. It may be that the diagnosis was not correct. Recovery, it is stated, was preceded by a general breaking out of boils.

Of the treatment very little can be said. Aside from attention to the general comfort and cleanliness of the patient, it consists merely of a "meditation on death;" of reading from time to time the inscriptions upon the mile-stones as our buoyant patient totters along the downward road to meet his inevitable doom. He is an inmate of that ward above the entrance of which is written, "For Incurables,"—a department which, through the deeply-searching spirit of modern science, may ere long, we hope, be made vacant, and the unfortunate paretic among the rest be restored to health, and ushered from that abode of fate.

NEW METHOD OF PRESERVING TUMORS AND CERTAIN URINARY DEPOSITS DURING TRANSPORTATION.

BY JOSEPH G. RICHARDSON, M.D.,

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Read before the Biological and Microscopical Section of the Academy of Natural Sciences, and recommended for publication in the Philadelphia Medical Times.

IN the early days of medical microscopy, partly because all revelations of the science were looked upon by most practitioners with suspicion or positive distrust, partly, I presume, on account of real unskilfulness among its students, microscopic examinations were rarely called for, and there was little need of devising plans for securing the portability of specimens. At present, however, when the value of the microscope, not merely as an aid, but even as the most reliable guide for diagnosis, prognosis, and treatment, in many forms of disease, is becoming almost universally recognized, some means of transporting urinary and other deposits, tumors, etc., over long distances, in the unaltered condition, has become a great desideratum. As a contribution towards this important object, I offer to the profession the subjoined method, originally contrived to meet the exigencies of a recent case in my own practice.

The clinical history in this particular instance, being accurately noted by the patient himself, a highly intelligent physician, gives such an exquisite picture of one form of the special renal malady in question, that I am confident most of my auditors will feel some interest in its relation, which is briefly as follows:—

About the 20th of August last, I received a letter from Dr. ——, residing in one of the trans-Mississippi States, informing me that he had forwarded to my address two specimens of deposit let fall from samples of his own urine, which he wished me to examine. In speaking of his condition, he remarked,—

"I am forty years of age, and for the last four years my health and strength have been steadily failing. From my normal weight of 165 pounds, I have declined gradually to 132, at the rate of about eight pounds per annum. My condition at first was attributed to malarial fever, but this cause has not involved the case for more than two years. My symptoms have, during this time, been as follows: great general debility, more or less dyspeptic symptoms, aggravation of rheumatic stiffness and soreness (not pain), from which I have suffered for years. A constant tendency to lose the erect position, and droop in the neck and shoulders. A gradual impairment of virility, amounting for the last six months almost to extinction. In fact, to sum up all in a word, general debility without apparent cause covers the case. I have run the gamut, under the ablest advice, of tonics, stimulants, and nutritious diet, and have taken a sea-voyage of three months' duration, with no appreciable benefit. A few months ago I accidentally discovered—what had never before been suspected—the presence in my urine of albumen in large amount. Its presence is persistent, and its quantity on the increase. The deposit after being precipitated, and allowed twelve hours to settle, just half fills the tube. I have never had any sign of dropsical effusion, but for the last year or more have suffered from periodical attacks of almost uncontrollable diarrhœa, developing themselves with much regularity about every two months, and lasting from three days to as many weeks. The amount of urine secreted is about thirty-two ounces for twenty-four hours, variable in color, but never turbid when fresh. I micturate a little oftener than when in health, always having to rise at least once during the night; urine much inclined to foam, sp. gr. normal (1021). Prof. ——, of Philadelphia, has pronounced my liver, spleen, and heart healthy, while my vital capacity as indicated by the spirometer is fifteen per cent. above par. . . . May I trespass upon your professional courtesy so far as to ask you to solve the problem, in which I am so much interested, by a microscopic examination? The presence of casts will of course demonstrate renal degeneration; but suppose no casts are found, what then? How in that case would my malady be termed? Certain it is I am suffering from something which, unarrested, must hurry me to a goal not dim or far distant. Please give me your views in reference to diagnosis, prognosis, and treatment. . . . Soliciting an early reply as the greatest favor that could be rendered to one in my present condition of suspense,—it is the *suspense alone* that tries me,—I subscribe myself, etc."

This letter—which, I should mention, Dr. —— with brave unselfishness, and in the spirit of a true philanthropist, has most generously given me permission to make free use of in preparing any paper upon the subject—was accompanied by a small box, enclosing the two samples of urinary deposit. Each specimen was contained in an ordinary two-drachm vial, stopped with a cork that previous to its insertion into the mouth of the bottle had been wrapped in a piece of thin India rubber, and then, being pressed in to the level of the lip, had been firmly tied down with another small circle of sheet caoutchouc. The ingenious precautions thus employed to prevent leakage were entirely successful, but the long journey of some twelve hundred miles, occupying more than a week of the hot weather with which we were visited during the past summer, had given time enough for complete decomposition to occur, and, although one of the specimens was prepared with a small portion of carbolic acid solution, entire putrefaction had taken place in both before their arrival. The vial which had been merely sealed up gave forth when uncorked a strongly ammoniacal odor, and its deposit was composed only of amorphous granular matter. The other specimen, to which carbolic acid had been added, contained an abundant white coagulum, without any tube-casts, epithelial cells, or leucocytes. Numerous mycelial threads of fungous vegetation presented themselves, and were probably capable of developing in the solution to which carbolic acid had been added, because that acid was deprived of its parasiticidal properties when it combined with the albumen of the urine.

On mentally reviewing the preservative agents at our disposal, and rejecting, of course, alcoholic and arsenical fluids, on account of their power of coagulating albuminous substances, it occurred to me that solution of acetate of potash, whose admirable properties as a preservative menstruum for microscopic objects formed the subject of one of my communications to this Section last year, would best serve our purpose; and I therefore wrote to my correspondent, informing him of the ill success of his first venture, and requesting him to prepare another specimen by filling a similar small vial with dry acetate of potash and then pouring in a fluid drachm of the sediment let fall from his morning urine after standing twelve hours in a cool place.

On the 12th of September I again received two samples, one of which had been mixed with the washings of a bottle that had formerly contained acetate of potash, and which comprised the doctor's entire stock of the salt; the other prepared with a small portion—about twenty drops—of alcohol. Both of these were worthless for microscopic examination; and I therefore procured a two-drachm vial of solid acetate of potash and forwarded it to my patient by return mail, requesting him as before to add to its contents a fluid drachm of his urinary deposit.

This last experiment in the preservation of a urinary sediment for transportation, the fifth of the series it completed, was entirely successful, the preparation reaching me about the 1st of October, not only in such a condition as to show well-defined hyaline, granular, and fatty epithelial casts of the uriniferous tubules in great abundance, but likewise embalming, so to speak, those pathognomonic signs of Bright's disease so perfectly that a drop of the fluid, which I have placed beneath one of the Academy's microscopes this evening, exhibits numerous tube-casts with admirable distinctness, even although more than six weeks have now elapsed since this identical sample which I here hold in my hand was prepared for examination, upwards of twelve hundred miles away.

During the past few years I have repeatedly felt the need of some method for preserving specimens of tumors and other pathological formations for microscopic investigation, which might prevent the alterations in the cellular elements which are so apt to occur with the media now in use, and also avoid the difficulty of sending fluids by mail, or the delay and expense attendant upon carriage by express. Since employing the plan described above, for insuring the portability of specimens of tube-casts, in spite of their exposure to either very high or very low climatic temperatures, I have made a few observations upon the effects of the acetate of potash solution upon morbid growths, and, as a result of my researches, recommend the following method.

Place a small fragment of any tumor or pathological structure, say a quarter to half an inch square and one-tenth of an inch thick, in a couple of drachms of saturated solution of acetate of potash, and allow it to fully imbibe the fluid by soaking therein for forty-eight hours. The solution referred to is best made by simply pouring half an ounce of rain-water upon one ounce of dry granular acetate of potash, in a clean bottle. When the tissue is thus freely saturated with this saline liquid, remove it by means of a pair of forceps, without much pressure, and insert it in a short piece of India rubber tubing, or wrap it up carefully in a number of folds of thin sheet rubber or of oiled silk, tying the whole firmly at the ends with strong thread. When thus prepared, specimens can be enclosed with a letter in an ordinary envelope, and sent long distances, doubtless thousands of miles, by mail, without danger, on the one hand, of decomposition, because of the preservative power of the potassic acetate, or, on the other, of desiccation, on account of its exceedingly deliquescent nature.

One very important advantage which this plan has over those in which alcohol or glycerin is employed as a preservative agent, is that the menstruum has little or no effect upon the oil-globules contained in cells. Hence by its aid we are enabled to recognize fatty degeneration in the cellular elements of a tumor, and easily to detect the same metamorphosis in the kidneys from minute oil-drops in the epithelium attached to tube-casts of Bright's disease, under circumstances where specimens preserved in glycerin or alcohol would afford a doubtful or wholly negative result.

Urinary deposits composed of oxalate of lime or of triple phosphate are not, according to my experience, readily preserved in solution of acetate of

potash, possibly on account of chemical decompositions which occur. When these crystalline bodies are met with, as is usually the case, in non-albuminous urine, they could probably be best retained in an unaltered state by adding from twenty to thirty per cent. of solution of carbolic acid to the renal secretion in which they are found.

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ANOMALOUS CASE OF PARALYSIS FOLLOWING DIPHTHERIA, AND SIMULATING LOCOMOTOR ATAXY.

BY WILLIAM C. KLOMAN, M.D.,

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I WAS recently called to see S. R., a girl, aged five years and nine months, whom I attended during the latter part of September for diphtheria of the fauces. It proved to be a very mild case, from which she recovered without difficulty. Upon the establishment of convalescence, I ordered her a solution of the citrate of iron and quinine, which I directed should be taken for some weeks in cod-liver oil. The mother assured me that the remedies had been taken for at least ten days, when, the child appearing to have entirely recovered her strength and looks, she ceased giving them. Two days before I was again sent for, they had noticed an irregularity in her gait, and that her speech was indistinct.

Upon seeing the child, the first thing that struck me was her position,—she was standing at the time,—which was exactly that of one afflicted with Duchenne's paralysis. Her shoulders were thrown back, her abdomen projecting, and her spine incurved. Upon desiring her to walk, I found her gait to be staggering, like that of a drunken man, apparently showing great want of co-ordination, and it reminded me strongly of one suffering from locomotor ataxy. *There was no paralysis of any limb.* As far as I could judge, there was no loss of sensation, although this could not be made out with accuracy, because of the child's reticence and bashfulness. I tried to get her to place her feet close together and to close her eyes, in order to see if she could maintain the upright posture, but it was not satisfactory. She was unwilling to comply. Her speech, as much as I could get her to say, was thick and nasal, indicating faucial paralysis. She protruded her tongue without difficulty, which was somewhat coated. Her pupils were normal, acting under the stimulus of light, and her sight not affected. Her hearing was also good. At first I supposed I had a case of what the books call locomotor ataxy, which is said occasionally to follow diphtheria; and certainly many of the phenomena simulated that form of disease.

I mentioned the case to my friend Prof. F. T. Miles, of this city, and desired him to see the case with me. He pointed out phenomena in which there was a marked deviation from those attending locomotor ataxy. He was likewise struck with the child's position in the upright posture. He requested the child to place one of her feet upon a low stool, while she supported herself with one hand upon a table. She placed her foot upon the stool in a perfectly natural manner, and then did the same with the other. There was no incoordination of movement. She did not raise the foot too high and then bring it down with a slap upon the stool, and she raised it sufficiently high to avoid striking it against the edge of the stool and stumping her toe. Of course the conclusion was evident that this was not a case of locomotor ataxy. The child was directed to pick up a small object placed at her feet upon the floor, and after bending over to get hold of it she had considerable difficulty in again assuming the erect posture, and the conclusion was arrived at that there was paresis of some of the muscles of the spinal column, probably of the erector spinæ. Her mother also stated that if she was lying upon the floor she had great difficulty in getting up, unless there was some object near, as a table or chair, by which she could assist in raising herself, by using the muscles of the arm. Assuming, then, that there was paresis of some of the muscles of the spine, this would satisfactorily explain the peculiar phenomena of the case, viz., her peculiar position when erect, shoulders reared back, abdomen projecting, and buttocks protruded backwards; also the apparent want of co-ordination in her movements while walking; all of which are due to her efforts to preserve her equilibrium, in the absence of the firm column of support usually afforded by the spine. This child is rapidly improving under the use of strychniæ gr. $\frac{1}{32}$ with 2 grs. citr. iron and quinine, and a teaspoonful of cod-liver oil three times daily, together with stimulating frictions to the spine.

TRANSLATIONS.

OUTLINES OF A SYSTEM OF PHYSICAL OTIATRICS.

From the German of Dr. Erhard, Instructor in the University of Berlin,

BY C. H. BURNETT, M.D.

AFTER investigating the hearing-power in all persons hard of hearing *per ossa et per cavitatem*, respecting irregular as well as periodical vibrations, I have come to the following conclusions:

I.—Respecting those hard of hearing who perceive sounds and musical notes normally *per ossa*. These must possess normal fenestræ, labyrinths, and labyrinth-contents, normal innervation, normal ventilation by the Eustachian tube, and normal pressure in the labyrinth. Among these are—1. Such as perceive ordinary noises imperfectly *per cavitatem*, but possess normal perception for music, and good hearing for speech. These cases are rare. The conductor, in an isolated condition, is still elastic, but on account of the increase in its bulk has become relatively impeded. In such cases the membrana tympani is seen to be loaded with calcareous deposits.

2. Such as hear noises normally *per cavitatem*, but hear musical tones imperfectly, and speech, relatively, badly. In these cases the conductor, in its isolated con-

dition, possesses too little resonance, for the membranæ tympani often show great defects, other things being normal: these also are very rare cases.

3. Those who hear *per cavitatem* neither noises nor musical tones normally. Under the latter head we may, by ocular inspection, recognize two distinct groups.—*a*. Those cases in which the membranæ tympani neither are defective nor have been, and in which otorrhœa is not present. In these the membranes are retracted, and the conductor, *i.e.* membrane and ossicula, in consequence of deposits, have not the proper degree of freedom in motion, in fact are impeded, yet without producing an interference in the resonance of the fluid in the labyrinth by pressure,—a fortunate as well as rare issue of these anomalies; or the conductor may still be in a condition of cellular integrity, but improperly situated, by means of the collapsed and retracted membrana tympani, which forces the head of the malleus and body of the incus upward against the roof of the tympanum, thus destroying both their normal isolation and resonance. In all of these last-mentioned cases the important object is to place the ossicula in a normal position. This can sometimes be accomplished, even in chronic cases, by means of a powerful introduction of air into the tympanum, or by means of a fortunate incision or perforation of the membrana tympani; but for one successful incision we may make one hundred fruitless ones. *b*. The membranæ tympani may be or may have been defective, and otorrhœa may have been or still is present. Generally the hearing is imperfect because the ossicula are imperfectly supported, or, as is more likely to be the case, they are in a disconnected state. Such cases are often those which furnish the most brilliant results of physical treatment. In these cases, if we insert into the meatus a piece of moist cotton, and allow it to press upon the remnants of the membrane, so as to exert pressure upon the ossicula, we may overcome the imperfect connection of the bones, *i.e.* their dislocation, and render the perception of ordinary sounds normal, although musical tones are not heard any better by this procedure in such cases. If now we take a small stick, —say a match,—and fasten to one end of it a membrane with a superficies of one square inch, or a card, and place the free end upon the cotton, or, in other words, lengthen the reconstructed conductor, uniting it with a freely moving and isolated membrane, we shall at once find that musical tones are normally heard.

II.—Those hard of hearing who perceive *per ossa* musical tones correctly, yet hear ordinary sounds imperfectly. These must possess, just as those in Class I., normal fenestræ in the labyrinth and normal ventilation by the Eustachian tube. If the affection is confined to one side, they hear the fork, when placed upon the forehead, best on the affected side, and the watch, similarly placed, only on the healthy side.

This kind of affection on both sides may be attended by certain exceptions, such as—1. Those who perceive musical notes *per cavitatem* absolutely normally, and also noises relatively normally; or we may say absolutely normally in comparison to their deafness *per ossa*. In such cases the entire membrana tympani must be intact, and therefore, in these cases, *ceteris normalibus*, the cause of the disturbance in function must be an insufficient innervation of the ramus vestibuli, or a loss of the acoustic hairs (Hörhärchen) in the vestibule, a result of a former morbid pressure exercised upon the labyrinth *per cavitatem*.

The first of these causes is always ambilateral and congenital; sometimes, though very rarely, it may be unilateral, and then it is the result of a powerful concussion, or of a long-continued closure of the Eustachian tube and absorption of the air in the tympanum on the affected side. In the congenital cases the patients are affected with tinnitus. These come to our notice only casually. Not so the cases of induced trouble of this kind. The former understand speech very well, but unconsciously fix their eyes upon the speaker. A distinguished general, who supposed he possessed normal hearing, asked me to see a friend who presented the acoustic conditions of those described in I., 3 *a*. During the consultation the general was very anxious to test his own hearing, and upon applying the tests it was found, to his great astonishment, that he was unable to hear the watch *per ossa*, but heard both the tuning-fork and the watch normally *per cavitatem*, the latter absolutely normally in comparison to his inability to hear it *per ossa*. He was unable to hear *per ossa* a "repeater," but heard easily an ordinary ticking watch held close before the ear. His deaf friend heard all noises better than the general, but the latter perceived all musical notes and sounds much better than the former.

2. We often find this condition of hearing during a painful unilateral affection of the external auditory meatus,—viz., furuncle. In such cases I believe that the infiltration of the cellular tissue exercises a pressure upon the ultimate parts of the organ of hearing—even upon the acoustic hairs of the vestibule. When the infiltration disappears, the pressure is diminished, and the hearing for the watch *per ossa* is usually, though not always, restored. Also in cases where cerumen touches the membrana tympani, the watch is not heard *per ossa* until the removal of the inspissated mass. Formerly I regarded these symptoms in cases of inflammation in the external auditory meatus as those of a participation of the labyrinth in the inflammatory process of the external ear,—assuredly with error; for why should the vestibule be a participant in the inflammation, and not the much more vascular cochlea?

3. In cases of chronic progressive deafness we often meet the following conditions: normal hearing for the tuning-fork *per ossa*, yet very abnormal *per cavitatem*, —in fact, they hear the fork *per ossa* after it ceases to be heard *per cavitatem*. They also show a progressive abatement in the perceptive power for the watch *per ossa et per cavitatem*.

In these cases the cause is found to be the increasing amount of pathological deposits in the conductor, and an increasing obstruction to its proper isolation in the cavity of the tympanum; increasing anchylosis of the base of the stapes, with, of course, an increased pressure upon the *crista acustica*, etc., although the membrane of the round window may remain perfectly intact. These are the individuals who hear better with the ear-trumpet between their teeth than with it in the meatus auditorius externus, for they possess only a normal cochlea and its appurtenances.

(To be continued.)

Uræmic Encephalopathia.—This is the designation given by M. J. Parrot, in a series of elaborate papers published in the *Archives Générales*, to that disease generally known by the profession as tetanus of infants, or infantile trismus. The author asserts that the resemblance to true tetanus is slight and only apparent; that the disease is one of the forms of eclampsia; and that, so far as the causes and the symptoms are concerned, it is directly connected with *uræmic encephalopathia;* in that variety where tonic convulsions predominate, is absolutely the same.

Dr. Otterson succeeds the late Dr. Cochran as Health Officer of Brooklyn, L. I.

PHILADELPHIA

MEDICAL TIMES.

A WEEKLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, DECEMBER 21, 1872.

EDITORIAL.

BLACK LISTS.

FEW physicians practise their profession long without finding out that earning money is one thing, and collecting it another. There is a certain class in the community who seem to prey upon recent graduates,—sending for them, flattering them, relating how Dr. So-and-so said, "Never allow any one, my dear madam, to give you morphia in any form," or how Dr. Something-else said, "The most remarkable case I ever saw,"—who take many airs of patronage upon themselves, but who afterwards ignore the bills sent to them, and perhaps grievously malign the aforesaid young men for ever after. Others there are who take less trouble; who, when they want medical attendance, send for it, knowing that they cannot or will not pay for it, and simply expecting to change their doctor every time they need one. Still another class, unfortunate but well intentioned, get from year to year deeper into debt to physicians, who, one after another, find their unrequited labors too great a burden.

To remedy these evils, it has been from time to time proposed, and the experiment tried, that "black lists" should be made out of those who do not pay their doctors, and that attendance should be refused to such as figure in these gloomy catalogues. But there are two elements wanting in all the attempts of this kind that have been made within our knowledge: first, that the lists should contain the names of those only who could pay if they would, and, secondly, that the agreement to withhold medical service should be general.

We are fain to believe that most professional men are too generous to make a personal matter of their desertion by patients who have paid their dues, and therefore that it would only seldom happen that a name would be inserted in the black list on this ground. And no one knows better than a struggling physician how urgent and imperative are the demands of the butcher and the baker and the landlord, of the tailor and the bootmaker. No one ought to know better how hard it is to meet every claim, and how strong the temptation is to postpone those which seem least pressing. No one, therefore, can know better how difficult it is to tell who the real delinquents, the doctor-swindlers, are. If we had lists of these, and these only, it would be well.

Then, if the whole profession were a unit in declining to submit to any further imposition on the part of these non-paying patrons, there would be some prospect of the nuisance being abated. But, as it is, only a very few are in possession of the lists, such as they are; and of those few we doubt whether one in ten, being sent for to a new patient, looks for the name among the proscribed, or, finding it, would resolutely refuse to render the required service. Humanity, indeed, would be thought to be outraged, if a life should be lost because the patient had employed other doctors without paying them.

We do not believe all the "black lists" in the world would do as much good as the establishment of the custom of sending out monthly bills to our patients, and of demanding prompt payment. And if it were recognized as common law that no patient with an unpaid doctor's bill could claim further service from him, or from any other doctor who chose to decline it, and that the profession owed mutual support to one another in this respect, we believe that the need of black lists would become less and less, until—perhaps with the beginning of the millennium—it would cease altogether, and medical attendance be as much "value received" as merchandise now is.

THE WARD'S ISLAND SCANDAL.

IN our issue of December 7 we noted editorially the fact of the summary dismissal of Dr. Echeverria from the post of Resident Physician to the Insane Hospital at Ward's Island, where he had refused to abet or sanction abuses which were at least winked at by the Commissioners of Public Charities and Correction. The reports, in the daily papers of New York, of the coroner's inquests in the cases of some of the

alleged victims of maltreatment in the Asylum, and letters published by Dr. Echeverria, have satisfied us that the affairs of the institution were certainly very bad.

We refer to the matter again, not perhaps for the last time,—for it is to be hoped that a searching investigation will be made into the conduct of the attendants, the mode of employing them, and the degree to which the commissioners were collectively and severally responsible for the neglect and cruelty exercised towards those who were placed in their charge,—but to speak of the professional aspect of the trouble. Here is a physician who, for trying to do his duty, is abruptly and discourteously turned out of his situation in a public institution. Who is to take his place? It will not do for the field to be abandoned to any more willing tool of the corrupt authorities, and yet it is hardly to be supposed that other men of good character and honorable standing will readily or of choice assume an office vacated in such a way. Under the circumstances, however, we believe that the best interests of all concerned would be promoted by a successor of the latter kind. Dr. Echeverria would assuredly find his most effectual vindication in the testimony of one who should take things as he left them. The patients would of course be equally certain to benefit by the proper care they would thus receive. And the public would have the advantage of knowing far better how things really had been going on, and how trustworthy or untrustworthy their commissioners had proved.

We make these remarks, not knowing who has been appointed to the position, but well aware that the profession in New York affords many men who, unless deterred from assuming the duty by the ill treatment of their colleague, would be found equally incorruptible; and hoping that one of these may have been selected to succeed him.

THE NEW HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

WE are glad to be able to report that the important movement for the establishment of a General Hospital in connection with the University of Pennsylvania, which has been noticed several times before in these columns, is advancing very satisfactorily. The plans have been, during the past summer, under the consideration of a committee of gentlemen of experience, and it is believed that, as finally adopted, they represent a combination of advantages unsurpassed by any modern hospital. The proposed building will consist of a large central structure containing the offices of administration and amphitheatre for clinical lectures; the pavilions for the accommodation of patients will be connected with this by corridors. Each of the pavilions is designed to accommodate about ninety patients, and the plan is so arranged as to admit of the successive addition of pavilions on either side of the central building, until the entire completed structure will present a front of over six hundred feet, and be able to accommodate between five hundred and six hundred patients. Unfortunately, this is merely the prospective future of the Institution, and we fear it may be years before it is fully realized. The present intention is to erect only the central building and two pavilions, which will accommodate one hundred and seventy-five patients. Work has been actively begun upon the foundation-walls of these, and it is expected that the first wards will be opened before the end of 1873. The hospital, in general appearance, is to be in harmony with the building of the Academic Department, and will stand opposite to the latter on the south side of Spruce Street. The preparation of the plans and the supervision of the building have been intrusted to the architect of the University, Mr. T. W. Richards,—whose success with the Academic Department leaves no room for doubt that the present work will be most efficiently accomplished.

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times:

BY a typographical error occurring in the report of the Pathological Society, published in the December 7th issue of your journal, in speaking of the cartilaginous tumors of the larynx and trachea, we are made to designate them as "*enchondroma*," instead of *ecchondroma*. It is maintained by eminent authorities that the term enchondroma should be strictly limited to heterologous growths which do not arise from pre-existing cartilage, but from some non-cartilaginous matrix; ecchondroma being reserved for such as spring from cartilage. Accepting this view, cartilaginous tumors of the respiratory tract should be designated as ecchondroma.

R. M. Bertolet.

December 10, 1872.

Operation for Extra-uterine Pregnancy.—The *Lancet* of Nov. 9 says, "A case of extra-uterine gestation was operated on last Saturday by Mr. Lawson Tait, at the Birmingham Hospital for Women. The abdominal section was made, and a dead child removed. The case is doing well."

PROCEEDINGS OF SOCIETIES.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

November 4, 1872.

Director W. S. W. Ruschenberger, M.D., in the chair.

Dr. JOSEPH G. RICHARDSON read a paper entitled "A New Method for Preserving Tumors and Certain Urinary Deposits during Transportation," in which he urged the employment of an acetate of potash solution for this purpose, and detailed a case illustrating the advantages to be derived from its use. (See p. 181 of the current number of the *Philadelphia Medical Times*.)

Dr. James Tyson remarked that he had several specimens of urinary deposits, sent from distant points, indeed as far as the Gulf States, merely sealed up, which had arrived in good condition; but thought that in warm weather this proposed plan might be very useful. In regard to morbid growths his experience was that such as had been put up for transportation in glycerin had done better than those preserved in alcohol, although good sections might occasionally be cut from the centre of a large mass of tumor-substance if not very long immersed in the latter medium. He had found nothing in the way of a preservative liquid so satisfactory as the saturated solution of the acetate of potash, whose precise qualities in this respect he was now testing in his own laboratory, and proposed to report to the Section at some future day.

Dr. Hare observed, in reply to a question, that he did not think any chemical decomposition would occur between oxalate of lime crystals and acetate of potash, and was inclined to attribute the disappearance of the octahedra mentioned by Dr. Richardson to a process of simple solution in the liquid.

Dr. Tyson stated that he had mounted oxalate of lime in lime-water and in various other fluid media, entirely without success, although he had found that the crystals keep well for a considerable time when imbedded in balsam.

Dr. Ruschenberger remarked that he had seen the octahedra gradually disintegrate even when mounted in Canada balsam.

Dr. Hare mentioned that in the course of some experiments on the production of large octahedra of oxalate of lime, he had observed the crystals grow constantly larger on several successive days in urine charged with the salt, after eating food containing the oxalates, such as rhubarb-plant or tomatoes.

Dr. Tyson added that he had even mounted those crystals in urine from which they had been deposited, and yet in a short time they disappeared.

Dr. Hare inquired of Dr. Tyson whether he had ever known the tube-casts of Bright's disease to be preserved in the urine from which they had been let fall, for so prolonged a period as those in the specimen upon the table.

Dr. Tyson stated that samples of urine forwarded to him from considerable distances had almost always arrived in good condition, but it had so happened that they were transported during cold, or moderately cool, weather.

Dr. Richardson observed that, in his experience, during the hot season, the tube-casts of Bright's disease commenced to undergo disintegration on the third or fourth day, and very soon afterwards became unrecognizable, being obscured by myriads of bacteria, which seemed to feed upon, or at to least develop at the expense of, the nitrogenous matter in the casts. In marked contrast to this rapid disintegration was the uninjured condition of the casts beneath the microscope on the table, although they had now been preserved for six weeks, including part of the warm weather in September last.

Dr. Tyson inquired whether the early destruction of casts met with by Dr. Richardson was not found to occur in specimens exposed to the air by standing uncovered in a conical glass.

Dr. Richardson replied that he had noticed the changes alluded to, both in unprotected samples and (although somewhat less promptly) in those contained in tightly-corked bottles, but, like his friend Dr. Tyson, had frequently seen casts preserved unaltered for several days in cool weather. He also called attention to the fact that, in cases where specimens were exposed *in transitu* to extremely low temperatures, their immersion in this solution of acetate of potash would enable them to escape without injury from freezing.

Dr. Tyson remarked that since the discussion had assumed so decided a urinological character it might interest the members to hear certain points in the history of two cases of Bright's disease which he had recently met in the Philadelphia Hospital, which bear on this subject, and which illustrate some of the difficulties in an accurate diagnosis of the different forms of this malady.

One was the case of a boy in the wards of his friend Dr. Pepper, with a scrofulous history, and the subject of phthisis. He was passing, before death, 130 ounces of pale urine, which contained numerous hyaline casts, all pointing to the existence of an albuminoid kidney. From the mode of accession of the attack, however, Dr. Pepper was led to suspect a *large white kidney*. This, on post-mortem examination, proved to be correct. But further examination also furnished the most beautiful albuminoid reaction of the Malpighian bodies of the cortex, and straight vessels of the cones. Thus was presented an instance of a mixed form of Bright's disease, the albuminoid and smooth white organ combined.

The second was a case which occurred in Dr. Tyson's own wards, in a woman 45 years old, who entered the house with partial suppression of urine, passing but two to four ounces in the twenty-four hours, of a smoky-hued fluid, which contained seven-eighths of its bulk of albumen, blood, and epithelial casts, commingled with granular and hyaline casts. A volumetric analysis exhibited a secretion of but 1.48 grammes of urea in the twenty-four hours. These are all the conditions of a case of acute inflammation of the kidneys. The history of the case previous to admission, however, led Dr. Tyson to diagnosticate granular kidneys, and to believe the symptoms present during the entire period of her residence in the house to be the results of an acute exacerbation. Such proved to be the case on post-mortem examination. The kidneys were perfect examples of the granular contracted organs.

REVIEWS AND BOOK NOTICES.

The Pathology, Diagnosis, and Treatment of Diseases of Women. By Graily Hewitt, M.D. Philadelphia, Lindsay & Blakiston, 1872. Second American, from the Third London Edition.

Dr. Hewitt's book on the diseases of women was so thoroughly reviewed and criticised by the various journals which greeted the appearance of the first and second editions, that any further extended notice would be superfluous, were it not that the third edition has been so modified, in fact so completely re-

written, that we are unconsciously reminded of the bright-eyed Fräulein at Prague to whose lot it had fallen to exhibit the horse which the ill-starred Wallenstein had ridden at the battle of Lützen: "The head, neck, part of the body, and the legs, sir, have been restored, but all the rest is the original animal." The unfortunate arrangement of the first edition greatly impaired its usefulness; its object was to facilitate diagnosis, and, in order to do this, "symptoms, not pathology, were made the basis of arrangement,"—so that, as in a homœopathic vade-mecum, a certain combination or group of symptoms could not but suggest the diagnosis and treatment, utterly ignoring the various morbid conditions which could alike give rise to the same clinical phenomena. Like a house without foundations, such a structure could not possess either strength or durability, and in the second edition a new element was introduced, viz., Pathology,—which was dexterously inserted under the old, as builders by means of screws and rollers lift up an old tenement and supply the wanted story or foundation. But the result was not successful; pathology and diagnosis were united, it is true, but they were only chained together, not organically one, and hence the endless repetitions irritated the reader and prevented the work from ever becoming a generally popular one. But now at last, tired of this patchwork, Dr. Hewitt has abandoned the attempt, and has erected a new edifice, of which pathology is the corner-stone; but, alas! this tearing down of the old idol was only to erect another and a greater one. In the first edition we found an excellent account of the diseases of the ovaries, those tiny organs, which, hidden away in the deep recesses of the pelvis, exert so powerful an influence on the entire existence of the woman, functional or organic diseases of which must be productive of such serious consequences; but in the present edition the symptoms referable to ovarian irritation are deprived of their usual significance, attributed to uterine displacement, and the statement which Dr. Hewitt himself makes is unquestionably true, viz., "that many cases which he has put down as diseases of the uterus would be claimed by some eminent authorities as diseases of the ovaries."

But what is this new mechanical system of uterine pathology, the importance of which seemed so great to our author as to lead him to revolutionize his own labors? It may be that, like the dishes in a French bill of fare, we fail to recognize an old friend by its new name.

In the first chapter the author gives a résumé of the cases which have come under his care in the University College Hospital, in justification of his statement that he is no longer dealing with "speculative theories," but eternal truths, for his ideas "have been in conformity with daily observation" at a bi-weekly clinic during *all* this time. Dr. Holmes tells us that he once inhaled ether in the hopes of being able to study psychologically its effects on the mind. While recovering from the stupefaction produced by the drug, it suddenly seemed as though the great secret of existence was revealed to him. With tottering steps he approached his study-table, and by a mighty effort wrote down the mystic words. When he finally became conscious, still impressed with the importance of his great mission, he opened the paper and read this revealed truth: "A strong smell of turpentine pervades the room."

On the second page of the new system we find this axiom,—"Patients suffering from symptoms referable to the uterus are almost universally *affected with flexion* or alterations in the shape of the uterus of an easily recognized character." Dr. Hewitt will not argue the question, whether or not these women who to-day are "affected with flexion" were previously affected with an inflammation of the organ, although his own views on the subject are shown in the following sentence: "logically and practically there are good reasons for placing flexions first in the order of sequence." But this is not the important issue to-day: time was when under the leadership of Kiwisch, Scanzoni, Martin, Simpson, and Hodge, the battle would have raged fiercely around this point, but now Dr. Hewitt directs our attention to the fact that, "putting aside the cases of cancer, fibroids, and pelvic cellulitis, the residue of cases of the entire number seen in the University clinic where the diagnosis was confirmed by an examination, in which no flexion was found, was *very trifling indeed*." And, indeed, as an eye-witness, we too will gladly bear testimony that a woman entering the consulting-room "presenting uterine symptoms" was indeed an anomaly if she did not suffer from anteflexion of the uterus to such a degree as to demand imperatively the use of Dr. Hewitt's "cradle-pessary;" and yet how significant the fact that within five minutes' walk the surgeons of the "Soho Square Hospital for Women" attended every morning from fifty to one hundred patients, and the use of a pessary was a rare exception, and that, too, when one of the surgeons in attendance has identified his name with one of the best intra-uterine pessaries yet suggested. Yet in this hospital, as in the other, under judicious general treatment, and the recognition of other more comprehensive causes than mere displacement in the production of uterine diseases, the results were most satisfactory. Crede's paper on "The Normal Position of the Uterus"—so often referred to in this journal—makes a far better exhibit with regard to the frequency of anteflexion than these selected cases of Dr. Hewitt's; but after a critical review of the statistical results, which is a model for vigorous exclusion of extraneous matter and philosophical deduction, what is the result reached? "That the normal position of the uterus involves a greater or less degree of anteflexion; that the pathological conditions which arise coincidently are the important element, while the displacement is of no consequence, and hence that the mechanical intra-uterine treatment with sounds and pessaries, which is at least superfluous, and in many cases dangerous, must be more restricted in its field of application." The extreme degrees of anteflexion of the uterus, such as sometimes occur, and which always constitute an exceedingly intractable condition, as well as cases of retroflexion, which is always a pathological condition, producing in most cases real and serious trouble, are not, of course, included in this category.

Fortunately, the treatment of flexions—the principal disease to which the generative organs in the woman are liable—is such a one as can be easily followed by the many victims of this Protean malady. Rest, absolute rest, is the essential element of success. In cases of retroflexion, "a position upon the face is secured by a kind of inclined plane of pillows, by which means a very comfortable position is secured," which must be maintained, "in cases where there is much irritation about the uterus, for some weeks." Ennui is prevented, however, by the introduction of the sound once in two or three days, and by the continuous use of the ring or "cradle-pessary," care being taken that "the cervix is not caught between the two projecting arms of the instrument," which accident, we are assured, is now guarded against by the addition of a cross-bar.

The value of Dr. Hewitt's book in other points is well known. Its great fault, which has prevented its adoption as a general text-book, was its arrangement, which has now been so modified that it is beyond criticism. It is its very excellence which makes us unwilling to pass over in silence the great danger, which is imminent, of its usefulness being impaired by the in-

troduction of the so-called mechanical system of uterine pathology, which at present so completely occupies the author's attention. Yet, as Scaliger wrote, "*ars etiam maledicendi;*" and we trust that we have not overstepped the limits of criticism in protesting against the undeserved prominence which displacements of the uterus occupy in this work.

The Physician's Visiting-List for 1873. Twenty-second year of its publication. Philadelphia, Lindsay & Blakiston.

Probably very few of our readers will need to have their attention called to this indispensable little volume, —the best of its kind within our knowledge. Convenient in size and arrangement, it has acquired a well-deserved popularity, attested by the yearly increasing demand for it.

BOOKS AND PAMPHLETS RECEIVED.

A Manual of Histology. By Prof. S. Stricker, of Vienna, Austria. In co-operation with Th. Meynert, F. von Recklinghausen, Max Schultze, W. Waldeyer, and others. Translated by Henry Power, of London, James J. Putnam, and J. Orne Green, of Boston, and others. American Translation edited by Albert H. Buck. With 431 Illustrations. 8vo, pp. 1106. New York, William Wood & Co., 1872.

Obstetric Aphorisms: For the Use of Students commencing Midwifery Practice. By Joseph Griffiths Swayne, M.D., etc. Second American, from the Fifth revised English Edition, with Additions. By Edward R. Hutchins, M.D. 12mo, pp. 189. Philadelphia, Henry C. Lea, 1872.

A Discourse commemorative of the Life and Character of Samuel Jackson, M.D., late Professor of the Institutes of Medicine in the University of Pennsylvania. By Joseph Carson, M.D., Professor of Materia Medica, etc. 8vo, pp. 32. Philadelphia, 1872.

Report on Climatology and Epidemics of Pennsylvania for 1871, particularly the Epidemic History of Smallpox in Philadelphia. By W. L. Wells, M.D. From the Transactions of the American Medical Association. 8vo, pp. 26. Philadelphia, 1872.

A System of Oral Surgery. Being a Consideration of the Diseases and Surgery of the Mouth, Jaws, and Associate Parts. By James E. Garretson, M.D., etc. 8vo, pp. 1091. Philadelphia, J. B. Lippincott & Co., 1872.

A Hand-book of Post-Mortem Examinations, and of Morbid Anatomy. By Francis Delafield, M.D., Curator to Bellevue Hospital, etc. 8vo, pp. 376. New York, William Wood & Co., 1872.

In Memoriam. Proceedings of the Medical Society of the District of Columbia, June 7, 1872, in reference to the Death of George Richards Miller, M.D.

GLEANINGS FROM OUR EXCHANGES.

Origin of Pus-Corpuscles.—Dr. R. H. Fitz (*Boston Med. and Surg. Journal*, October 17) says that F. A. Hoffmann (*Virch. Arch.*, vol. liv., 4 Heft), with P. Langerhans, has already shown that some time after the injection of cinnabar into the blood-vessels, grains of the same could be found in the fixed cells of the connective tissue, and that whenever an irritation had occurred, the accumulation of pigment in these cells became so great that one could recognize the place with the naked eye, by the red color.

Hoffmann (in the present article) states that wounds were produced and afterwards cauterized, or dilute acetic acid was injected; twenty-two to twenty-four hours after inflammation was thus excited, injections of cinnabar were made.

The pus from the wounded surface contained no cinnabar, yet the tissues from which the pus came contained cells in which were numerous particles of cinnabar; these cells corresponded completely with the so-called fixed connective-tissue cells. The pigment was also found in clumps, imbedded in a dense fibrous stratum; tearing apart these clumps, there were found grains of cinnabar, free or sticking to the tissue-fibres, cells containing pigment, and débris of cells. These were, doubtless, the remains of encapsuled abscesses. Apart from them, free cinnabar granules were not found in the connective tissue. Hoffmann infers that the fixed cells take no part in the production of pus, but remain wholly passive. Were they destroyed, the cinnabar must be set free after seven to nine days' suppuration, and be found as such, or taken up by the wandering cells. Were they active, it would be probable that cinnabar would appear in the pus, especially as the pigment was found in large amounts in the vicinity of the suppurating surface. Hoffmann had previously shown that cell-proliferation in the extirpated cornea occurs, and, from negative testimony, he inferred that the increase proceeded from the fixed corneal corpuscles.

Stricker has found that the wandering cells are capable of division after leaving the vessels, so that the previous inference cannot be regarded as doubtful.

In conclusion, he states, "Up to the present time, any other source for pus-corpuscles than the blood-vessels has not been proven nor placed upon a scientific basis."

Prof. Schiff, in a lecture before the Academy of Sciences at Florence (*Berl. Klin. Woch.*, 1872, No. 14), asserts that in extensive suppuration the white blood-corpuscles might be replaced in a manner suggested by the experiment of enucleation of the spleen. When this operation is performed on dogs, these corpuscles increase if the animal remains healthy; much more so if peritonitis follows the operation. He asserts that the increase of these depends upon an irritation of the inner coat of the blood-vessels; the more extensive this is, the greater the increase. One can, therefore, regard these as the product or transformation of the epithelial cells clothing the intima. This condition might be called a catarrh of the same.

Post-Mortem Delivery (*Dublin Journal of Medical Science*, September, 1872).—At a meeting of the Dublin Obstetrical Society, May 18, 1872, Dr. Darby detailed the following case:—

"Anna Maria Doyle, a robust woman, aged 24 years, the mother of one child, and in the sixth or seventh month of her second pregnancy, was admitted to the Rathdown Fever Hospital in typhus fever, on the 2d of March, 1871. Was seized with violent epistaxis shortly after midnight on the morning of the 6th. I was at her bedside by five o'clock A.M., and found she had been dead for ten or fifteen minutes. The left shoulder, arm, and side were swollen, black, and covered with large bullæ containing yellowish serum; the smell from the body was unbearable, and I ordered the body to be removed from the ward (in which there were six or seven patients) to an empty room on the same floor. In consequence of her advanced pregnancy when admitted, I desired the nurse to be on the watch for uterine symptoms. None such presented up to the time of her death, nor, after the removal of the body to the vacant room, when it became the duty of the nurse to

make a special examination, was there any discharge or other circumstance to attract attention. In six or seven hours afterwards the nurse had occasion again to enter the room; she then observed that a putrid fœtus of about the sixth month, with the secundines, had, subsequently to her previous visit, escaped from the dead body. All this was reported to me. I saw the fœtus, and have no reason to doubt the accuracy of the nurse's account of the circumstances connected with this rare and interesting case. A question as to whether post-mortem parturition results from vital organic action of the uterus after the death of the individual, or whether rigor mortis may be sufficient to expel a fœtus from an already dead body, or whether the rapid generation of gases therefrom may not, with more probability, be the producing cause of the phenomenon, is a matter of grave consideration both in its physiological and medico-legal aspects; and, while I abstain for the present from offering any decided opinion on these points, I hope some member present may be induced to initiate a discussion which may let in some light upon a subject which requires further elucidation."

The Double Murmur of Duroziez in the Arteria Cruralis, and its Significance in the Diagnosis of Insufficiency of the Aortic Valves (Hoffmann, assistant to Von Ziemssen in Erlangen: *Berliner Klin. Wochenschr.*, Sept. 2, 1872).—Under normal circumstances, a double murmur may always be heard in the large arteries lying near the heart, the first part of which, occurring at the moment of diastole, is caused by the sudden and forcible rushing of the torrent of blood into the elastic vessels; while the second part of the double murmur is systolic, and is caused by the closure of the aortic valves. In the distant arteries, however, as in the *cruralis*, only the first part of the murmur is heard normally; whereas the second part is never heard in the healthy condition.

In cases of aortic insufficiency, the second tone may also be detected, even in the most distant vessels, as described by Duroziez, who failed, however, to give any explanation of the phenomenon.

Traube, Friederich, and Riegel, among German writers, have alluded to this fact, but only the latter has endeavored to account for it.

His views have obtained a complete introduction into German hospitals, and Dr. Hoffmann relates a case under the care of Professor von Ziemssen, which illustrated during life all the phenomena of aortic insufficiency, with the so-called "double murmur" of Duroziez in the crural artery, and, upon post-mortem examination, all the signs noted during life were substantiated by the pathological changes in the heart.

In conclusion, Dr. H. says, "The clinical worth of the double murmur may be said to consist in the indication of the *presence of extensive insufficiency of the aortic valves without stenosis; extensive hypertrophy of the left ventricle, notwithstanding which, there is no degeneration of the muscular substance of the organ; and the presence of normally elastic, non-sclerosed arterial walls; all of which conditions are necessary*, according to Riegel, for the production of the double murmur of Duroziez in the crural artery."

Resection of the Superior Maxilla on account of Cylindroma, with Preliminary Tracheotomy and Tamponnement of the Larynx (reported by Heiberg, from the clinic of Schönborn, of Königsberg, Prussia: *Berlin. Klin. Wochenschr.*, No. 36, 1872).—The operation was performed upon a laborer thirty-six years old. Swelling of the left cheek had been noticed for four years and nine months previous. There had never been any pain, the health has always remained perfect, and the man passed through the recent Franco-Prussian campaign as a private. The tumor was everywhere adherent to the bone,—had the consistence of cartilage, and fluctuated at certain points. His speech was slightly impeded, but perfectly intelligible. The act of swallowing was somewhat inconvenient.

After the patient had been placed under the influence of chloroform, in the usual way, tracheotomy was performed; a stout tampon, fastened to a string, was passed through the wound upwards against the under surface of the glottis; a canule was introduced, and through this the anæsthesia was kept up. During the operation for exsection of the tumor, despite the tampon already alluded to, blood was discovered trickling into the trachea, and a second tampon of cotton was pushed backwards behind the tongue, and thus the trachea was tamponed from above. During these manipulations around the epiglottis and trachea, the administration of chloroform was continued through the canule, and the patient breathed as "quietly as an infant." The incisions through the integument healed by first intention. In twenty-four hours the canule was removed from the tracheal wound, and on the nineteenth day after the operation the patient was discharged cured.

Apomorphine as an Emetic (M. Loeb, of Worms: *Berliner Klin. Wochenschr.*, No. 33, 1872).—The investigations of Siebert, Riegel, and Boehm, concerning the nature of this drug as an emetic, induced Loeb to try its effects in the case of a young man who had accidentally swallowed a large draught of alcoholic solution of oil of bitter almonds. The author says, "I was called to see the patient half an hour after the accident, and decided that an immediate emetic must be given. I therefore injected into the region of the stomach 0.008 of a fresh solution of apomorphine. In eight minutes, after repeated gapings on the part of the patient, copious emesis of a mass smelling strongly of hydrocyanic acid occurred. This recurred in five minutes. Then the patient recovered rapidly."

The success of this treatment is ascribed to the promptness of its action.

As a rule, no more than 0.008 of a solution of apomorphine, made in the strength of 0.12 : 4.0, is to be administered. This usually produces in adults two attacks of emesis. In a child thirteen months old, to whom the author gave 0.002 of a solution of this drug, alarming symptoms followed the first attack of vomiting.

(The above report is literally translated; the precise quantities used are not given, but probably 0.008 of a cubic metre, = 8 cubic millimetres, or a few minims, is meant.)

Electricity in Basedow's Disease (M. Meyer: *Berliner Klin. Wochenschr.*, No. 39, 1872).—Four cases are reported in this article by the author. In conclusion he remarks, "We see the beneficial influence of galvanization of the sympatheticus in these cases of Basedow's disease, in which the right side is affected more than the left. One of the four cases reported showed no symptoms of struma,—an absence of which, in this disease, Dusch, in his 'Lehrbuch der Herzkrankheiten,' Leipsic, 1868, says he has found only three times in fifty-eight cases, but they all manifested great disturbance in the circulation. The galvanization had especially a beneficial effect in reducing the exophthalmos and in removing the strumous condition; on the other hand, we could detect no diminution in the frequency of the pulse, nor any cessation of the palpitation of the heart, perhaps because the cases reported were very anæmic, which fact alone is sufficient to produce the distressing heart-symptoms. The crowning success of the application of galvanization in these cases is the improvement in the circulation of the blood, shown in the freshened color and the return in

one case of the menses after an absence of nearly four years, and the cessation of menorrhagia in another."

Poisoning by Vanilla.—Schroff says that the natives of Mexico and South America use a kind of oil, acajou oil, to make the vanilla bean flexible and soft, and that this oil often contains a sharp substance like cantharides. He attributes the poisonous properties of vanilla to this latter substance.

MISCELLANY.

Somnambulism and Kleptomania.—The following will remind some of our readers of a story contained in the "Ingoldsby Legends:" A retired French tradesman was lately much disgusted at finding various valuable personal articles mysteriously absent from their proper places. Residing with him was an old servant, who had lived in the house thirty years, and a nephew: it was impossible for him to suspect either, and yet there was not the slightest ground for supposing that the robberies had been effected by any one outside the house. He resolved to watch. To his consternation, he observed, one or two nights after, the nephew, in his night-dress, descend, take various valuable articles, and proceed with them to a summer-house in the garden. On his return the uncle confronted him, being duly prepared, we may suppose, for "a scene." He was disappointed. The nephew appeared utterly unconscious of his affectionate relative's presence, and passed quietly up-stairs to his room. Next day the uncle taxed him with his extraordinary conduct. The nephew denied all knowledge of it. The summer-house was searched, and in a cellar beneath it all the missing articles were found. It is bad enough to have either a somnambulist or a kleptomaniac in a family, but the two combined is really a trial which we trust, for poor humanity's sake, will remain rare.

From Japan.—A correspondent of the *Philadelphia Inquirer*, writing from Yokohama, says, "Surgeon H. C. Nelson, United States Navy, who has been in charge of the United States Hospital for some time past, left for home in the Alaska on the 7th instant, being relieved on that day by Dr. King, United States Navy. To Surgeon Nelson belongs the credit of building, organizing, and putting into active operation the finest hospital in the whole East. He has shown excellent judgment in all his selections and appointments, and the Americans of Yokohama take pride in pointing to the American flag flying over a building that is an ornament to the place.

"Dr. Simmons, an American, has been intrusted by the native officials of Yokohama with the establishment and organization of a hospital for the accommodation of sick natives. The government has under consideration the establishment of numerous hospitals and medical schools."

Cider in Rheumatism.—It has come to light that, in certain parts of England, working-people, and even little boys employed to frighten birds away, are compelled to take a considerable part of their wages in cider. Common laborers are required to take three pints per day, carters and shepherds four pints, and boys one pint. Women who work out are required to take one quart daily. Aside from the moral evils of the practice, it is found that the health of the laborers is seriously affected, and that rheumatism is a frequent result; as might be expected on the prevalent theory that that disease is caused by, or is associated with, lactic or uric acid in the blood. The subject has enlisted the attention of the House of Commons, and proceedings have been instituted for the purpose of correcting the evil.

Dartmouth Medical College.—The graduating exercises at the close of the seventy-sixth annual course of lectures at this institution were held October 30, 1872. Addresses were made by Dr. L. French, of Manchester, N. H., and Rev. Dr. Smith, President of the College, after which the degree of M.D. was conferred on twenty young men.

The Museum of Pathological Anatomy, founded by E. W. Stoughton, Esq., by the gift of upwards of ten thousand dollars, is rapidly approaching completion, and is expected to rival any similar collection in the country. The improvements made and in progress, together with the increasing number of students, give promise to this venerable school of extended usefulness in the future.

The Medical Corps of Metz.—Before the siege the medical corps of Metz numbered thirty-six physicians. Scoutetten, Félix Maréchal, Warin, and Crespy paid for their devotion with their lives. Many others fell dangerously sick. After the annexation the medical emigration commenced in advance of the popular, which latter has reduced the population from forty-nine thousand to sixteen thousand. But very few of our confrères—they whom age and association have fixed—will spend the rest of their lives in their old home. The Society of Medical Sciences, having turned over its library and archives to Nancy, has adjourned until better days.

Army Retiring Board.—The following dispatch appeared in the *Evening Telegraph* of December 14: "By direction of the President, the board to retire disabled officers, convened in Philadelphia, May 23, 1871, is dissolved. A board to retire disabled officers is ordered to convene at New York city on the 20th inst., or as soon thereafter as practicable.

"The following is the detail for the board: Major-General W. S. Hancock, Colonel Rufus Ingalls, Assistant-Quartermaster-General Colonel George W. Getty, 3d Artillery, Surgeons John M. Cuyler and John Moore."

Obituary.—Within one week the medical profession in this city has sustained the loss of two of its members.

Dr. René La Roche died on the 9th of December, at the advanced age of 77. Dr. Samuel L. Hollingsworth died on the 14th, in his 57th year. We shall place be-

fore our readers, at an early day, more extended notices of these gentlemen, who, although of late years precluded by ill health from taking part in the active duties of life, were in their day men of eminence, and whose memories will ever be held in deserved respect.

STATISTICS OF LIFE-INSURANCE.—The *Medical and Surgical Reporter* says that the Statistical Congress recently in session at St. Petersburg paid a high compliment to Mr. William Barnes, late Superintendent of the Insurance Department of the State of New York, by electing him to prepare a volume on the statistics of life-insurance in the whole world, to be presented at the next meeting, three years hence.

DR. DRUITT.—Many of our readers will regret to hear that this gentleman's health is so seriously impaired that he is obliged to spend the winter in the south of Europe. He is best known in this country by his work on surgery, so long deservedly popular as a text-book. He has for some years been the editor of the *Medical Times and Gazette*.

THERE were four hundred and seventy-six new medical students registered in the Metropolitan Schools of London for 1872,—the whole number being one thousand four hundred and ninety-six. This is the largest number hitherto registered, being one hundred and ninety-eight more than in 1870, and twenty-one more than last year.

THE GERMAN HOSPITAL.—The Board of Directors of the German Hospital in this city met recently, and among themselves subscribed $7000 towards liquidating the debt on the new hospital building.

APPOINTMENT.—Dr. A. K. Minich has been appointed on the Dispensary Staff of the Episcopal Hospital, in place of Dr. James V. Ingham, resigned.

MATTHEW and John Guy Vassar, the two sons of the man who founded Vassar College, have decided to establish a $100,000 hospital in Poughkeepsie.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending Dec. 14, 1872, were 290; 168 adults, and 122 minors. 11 were of bodies brought from the country; making the mortality of the city 279. Among the causes of death were:

Consumption of the Lungs	43
Other Diseases of the Respiratory Organs	54
Diseases of the Circulatory Apparatus	16
Diseases of the Brain and Nervous System	41
Diseases of the Digestive Apparatus	20
Zymotic Diseases	16
Typhoid Fever	5
Casualties	12
Cancer	7
Suicide	2
Debility (including "Inanition" and "Marasmus")	27
Malformation	3
Still-born	12
Old Age	12

(The interments reported for the week ending Dec. 16, 1871, were 497.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER. Max.	Min.	BAROMETER. (2 P.M.)
Dec. 8	43.0°	35.0°	29.90 in. (Rain.)
" 9	38.0	22.5	29.89 in. (Snow.)
" 10	27.5	18.5	30.34 in.
" 11	32.0	23.0	30.50 in.
" 12	29.0	17.0	30.27 in.
" 13	33.0	21.0	30.26 in.
" 14	41.0	23.0	30.35 in.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM DECEMBER 3, 1872, TO DECEMBER 9, 1872, INCLUSIVE.

MURRAY, ROBERT, ASSISTANT MEDICAL PURVEYOR.—To proceed to Washington, D.C., and report to the Adjutant-General (pursuant to instructions from the Secretary of War). S. O. 222, Military Division of the Pacific, Nov. 30, 1872.

VICKERY, R. S., ASSISTANT-SURGEON.—To accompany batteries of 3d Artillery, on Steamer "Magnolia," to New York City, and return by rail to New Orleans, La. S. O. 184, Department of the Gulf, Nov. 28, 1872.

CORSON, J. K., ASSISTANT-SURGEON.—Granted leave of absence for four months. S. O. 315, War Department, A. G. O., Dec. 4, 1872.

JOHNSON, HENRY, MEDICAL STOREKEEPER.—To perform the duties of Medical Purveyor during absence of Lieutenant-Colonel Murray. S. O. 222, c. s., Military Division of the Pacific.

LIST OF CHANGES IN THE MEDICAL CORPS U.S.N., TO DECEMBER 12, 1872.

Medical Director J. S. MESSERSMITH,—Relieved.

Assistant-Surgeon JAMES W. BUELL,—Appointed.

P. A. Surgeon B. S. MACKIE,—To the Naval Laboratory, New York.

Assistant-Surgeon P. P. BEILBY,—To the U.S. Navy Yard, Washington, D.C.

Assistant-Surgeon B. F. ROGERS,—To the U.S. Steamer Tallapoosa.

Assistant-Surgeon EDW. EVERS,—To the Naval Hospital, New York.

Medical Inspector R. P. MACCOUN,—Promoted to Medical Director.

Medical Inspector CHARLES EVERSFIELD,—Promoted to Medical Director.

Surgeon W. T. HURD,—Promoted to Medical Inspector.

Surgeon ALBERT L GIHON,—Promoted to Medical Inspector.

P. A. Surgeon C. J. S. WELLS,—Promoted to Surgeon.

P. A. Surgeon ED. KERSHNER,—Promoted to Surgeon.

Surgeon E. M. STEIN,—To Naval Hospital, Pensacola, Florida.

Surgeon T. L. DUBOIS,—To U.S. Steamer Pawnee.

Surgeon JOSEPH HUGG,—To Receiving Ship Potomac, Philadelphia.

Medical Director J. D. MILLER,—Detached from Receiving Ship Potomac, and waiting orders.

P. A. Surgeon J. W. COLES,—To Naval Hospital, New York.

P. A. Surgeon H. M. RUNDLETT,—To Naval Hospital, Yokohama, Japan.

Assistant-Surgeon G. H. TORNEY,—To the U.S. Steamer Onward.

Surgeon E. C. VERMEULEN,—Detached from Onward, and proceed home.

Surgeon J. S. KNIGHT,—Detached from Saranac, and proceed home.

P. A. Surgeon J. R. TRYON,—Detached from Hospital, Yokohama, and proceed home.

Surgeon S. ROBINSON,—To Receiving Ship Sabine, Portsmouth, New Hampshire.

Surgeon WILLIAM E. TAYLOR,—To the U.S. Steamer Saranac.

P. A. Surgeon J. G. AYRES,—Special duty, Washington, D.C.

Assistant-Surgeon J. W. BUELL,—To Receiving Ship Sabine, Portsmouth, New Hampshire.

SATURDAY, DECEMBER 28, 1872.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON AMPUTATION AT THE KNEE-JOINT.

BY JOHN H. BRINTON, M.D.,
Surgeon to the Philadelphia Hospital.

Reported by FREDERICK WHELEN, Student of Medicine.

GENTLEMEN,—The first case to which I will direct your attention is that of

T. B., aged 57, intemperate, the youngest of thirteen children. States that his mother lived to be more than one hundred years old. Has never had any venereal disease, and has been perfectly healthy until about three years ago. At that time suffered a deep gnawing pain in his left leg, gradually augmenting in severity, especially at night. In a short time the limb became discolored, and an ulcer formed, which gradually increased until it has reached its present dimensions. His occupation has been that of a carter, but for the last nine months he has been unable to work. Within the last year he tells us that many pieces of bone have been discharged from the surface of the ulcer.

Such, gentlemen, is this man's past history; look now at his present condition. You can see at a glance that this is unfavorable, and that his health has been greatly impaired by his sufferings and by his confinement to his bed. His face is pale, his pulse quick and feeble, his appetite capricious and insufficient. He suffers constant pain in the leg; greatly aggravated at night. He cannot sleep, and his strength has been enfeebled by repeated hemorrhages. Upon the leg itself you observe this enormous ulcer, seven inches in length by seven in width,—almost, in fact, girdling the leg. Notice its depth, and you will see that the gastrocnemii, soleus, and tibial muscles are exposed, and in a degree destroyed. The tibia for the extent of six inches has been completely eroded; only a splinter the size of your finger now remaining. The limb is utterly useless, and the destruction, which I suspect to be of a malignant character, has been so great that reparation is beyond all hope.

Now, what can we do for this man? He is evidently running down rapidly, and without prompt and decisive surgical interference he must inevitably succumb. In my judgment, and with this my colleagues agree, there is but one chance for him; and that consists in an immediate removal of the diseased limb. The amputation in this case might be performed either through the upper third of the leg, or through the knee-joint. The latter is the operation I have decided upon, and for these reasons. In the *first* place, the disease, if of a malignant type, will, I think, be less liable to return if the amputation be at the joint than if the tibia and fibula be sawn through. *Secondly*, I am convinced that the knee-joint amputation is attended with less risk to the patient's life than amputation through the lower third of the thigh, or even through the extreme upper third of the leg, the only other possible point of selection in this case. *Thirdly*, according to my experience, the resulting stump, after disarticulation at the knee, serves exceedingly well for the adaptation of a secure and serviceable artificial limb.

Let me now say a few words to you concerning this knee-joint amputation; for it is one which I have done many times, and, I may add, with a very fair degree of satisfaction. The operation is not a novel one, for it is described as having been performed, in some sort, full two hundred years ago. It fell, however, into disuse, and was not revived until the time of the great French surgeon Velpeau. Velpeau's first operations were attended with marked success, but in his later writings he states that perhaps he had been previously too sanguine regarding the safety of this method of amputation.

In the United States the disarticulation at the knee-joint—at first regarded with suspicion—has crept steadily into favor, and articles advocating its performance have at different times been published by Drs. Stephen Smith and Markoe, of New York, by myself, and by others. In the amphitheatre of this hospital the operation has been repeatedly practised, and one of the earliest knee-joint amputations in this country was performed here more than thirty years ago, by that illustrious surgeon, the veteran professor of anatomy in the Jefferson College. In England this amputation is in high repute, and has been frequently resorted to by Messrs. Symé, Lane, Coulson, Pollock, Cooper Forster, Sir William Fergusson, and others.

In endeavoring to arrive at the real value of knee-joint amputation, you will naturally ask me, *first*, what is its mortality rate, when compared with thigh and leg amputations; *secondly*, to what class of cases is it applicable; *thirdly*, what are the dangers of the operation, and how can they be most readily avoided; and *lastly*, what sort of a stump is left after the amputation.

First, as to its Mortality Rate. Regarding this I would state that in April, 1868, I collected and published in the *American Journal of the Medical Sciences* the records of 117 cases of amputation at the knee-joint performed by American surgeons. The resulting death-rates were,—for primary amputations after accident, 44 per cent.; secondary after accident, 42; secondary amputations for disease, less than 17 per cent.,—an average mortality of about 34 per cent. in the 117 cases. The mortality rate in 164 cases, American and foreign, was about 32 per cent. It will be found by comparison that these percentages of death are greatly below those of amputation in the continuity of the thigh, and I think also much less than the ratio furnished by the result of amputation through the upper third of the leg in the vicinity of the joint. So far, then, as a patient's chances of life are concerned, especially in cases of secondary amputations for disease, it seems to me that the amputation in question is from every point of view eminently proper.

Secondly, to what *class of cases*, and under what circumstances, is the amputation at the knee-joint applicable? The answer can be broadly given: to very many cases of injury or disease which have usually been regarded as necessitating amputation at the lower third of the thigh. In this category I would include—1. Cases of crushed, compound, and gunshot fractures of the leg bones, extending up to or involving the knee-joint. 2. Gunshot wounds of the knee-joint. 3. Gangrene of the leg, the result of injury to the great vessels or nerves. 4. Chronic or irreparable diseases of the bones, or tumors of the leg. 5. Degeneration of the knee-joint.

Our *third* topic of inquiry is concerning the dangers of the disarticulation at the knee. In all large amputations, as you well know, there is a certain inevitable amount of *shock*; but in the operation in question, this subsequent shock would seem to be diminished in an extraordinary degree. Whether this be due to the comparatively slight section of the muscular tissue, or to the preservation of the continuity of the shaft and medullary cavity of the femur, or to both, I cannot tell, but I am quite sure that the shock of this operation is comparatively less than that in amputations of the leg or thigh. Then, too, I think that in this disarticulation, as in all other amputations in contiguity, there is less likelihood of pyæmic poisoning. The cancellated and medullary structures are alike spared, the risk of osteo-myelitis is unquestionably decreased, and the chances for the patient's life are proportionately improved.

It has been alleged by many surgeons, but, I think, without due consideration, that the occurrence of synovial inflammation is to be feared in this connection. Regarding this, I can only say that I have never encountered any grave symptoms which could be referred to such a cause. Indeed, how could they exist? when it is evident that the operation itself destroys the articulation, and that in a very few days—I might almost say hours—all traces of the synovial membrane disappear.

There is, however, one accident, not infrequent after amputation at the knee, which deserves your attention. I refer to inflammation of the sheaths of the thigh tendons, especially of that of the biceps muscle, and to inflammation of the bursa over the patella. This inflammation, marked by tenderness, pain on pressure, excessive swelling, arrest of discharges from the stump, and considerable constitutional irritation, occurs between the second and fifth day after operation. It is sometimes so severe as almost to compromise the patient's welfare. The treatment consists in early and free evacuation of the abscesses, and in the proper constitutional support.

The healing of the stump of a knee-amputation is full of interest. Sometimes, although very rarely, a union by first intention may happen. Most often, however, only partial union of the flaps takes place, while, here and there, patches of slough separate at their edges. The articular cartilage is thus left uncovered. Sometimes it softens, becomes thinner, and disappears molecularly, the vessels on the end of the bone beneath the softening cartilage gradually becoming more distinct, and serving as the support for granulations of rapid growth, which spring from the bone to coalesce with other growths from the soft tissues of the inter-condyloid notch. In other cases, on the eighteenth or twentieth day, the articular cartilage, having softened and become sodden, separates in layers from the bone, and may be drawn away by the forceps. Granulation, as already described, then takes place.

You will naturally ask me, what kind of a stump does this knee-amputation give? My answer is, A good one, a very good and useful stump, and one in which, if you are careful to preserve the insertion of the round tendon of the adductor magnus, a great degree of motion, and especially of rotary power, will be obtained. There are now in this city a number of persons upon whom I have performed this operation, and the character of the stumps is very gratifying.

Here let me say a few words to you as to the choice of a mode of operating. Your main object will be so to manage your incisions as to procure a large and, indeed, at first sight a redundant skin covering. This you may do either by the lateral or by the antero-posterior flap method. I shall this morning employ the latter. The lateral flaps have the advantage of affording a good drainage; but should sloughing occur, and to some extent it does in nearly all cases, the condyles are apt to project. The cicatrix too, by the lateral flap plan, falls on a point of future pressure; whereas, by the other method, it will be found behind and rather above the articular line. We will, therefore, employ the antero-posterior flap.

Our patient is now etherized, his leg has been well elevated to drain off the blood, and I tighten the tourniquet, which you notice is adjusted in the ham over the popliteal vessels, a point of application which I greatly prefer. Notice, if you please, now, my mode of incision. Standing upon the right side of the limb, I enter my knife below the head of the fibula, and, sweeping it around anteriorly, cut from the front of the leg a large integumental horse-shoe flap, terminating my incision over the inner head of the tibia. This flap I dissect up, and I then divide successively the ligament of the patella, the crucial and the coronary ligaments. Next, grasping the leg in my left hand, I carry my knife through the joint, and cut *directly backwards*, so as to divide the popliteal artery; I then turn the knife edge downwards, and cut out a short and broad flap, say three inches in length. This flap contains the heads of the gastrocnemii. These I immediately remove, since I wish the flap to be integumental only. I then ligate the bleeding vessels, consisting of the popliteal artery and vein, the superior muscular, sural, and superior articular arteries, and take off the pressure of the tourniquet. The venous oozing ceases, and the closing and dressing of the stump can be proceeded with after a proper interval.

Let me now add a few words as to one or two of the steps in the above procedure. Thus, I began and terminated the incisions of my anterior flap

well below the joint, in order to insure a perfect condyloid covering. I divided the *coronary ligaments*, so as to allow the semilunar cartilages to *remain* upon the articular end of the femur, and in the stump. By thus leaving them in position I have a cap fitted upon the end of the femur, which preserves all the fascial relations, effectually prevents retraction, and guards against the projection of the condyles. I insist somewhat strongly upon this retention of the semilunar cartilages, since I regard it as having an important bearing upon the future well-being of the stump. Then, too, you noticed that I divided the popliteal by carrying my knife *directly backwards*, instead of turning its edge downwards as soon as the posterior ligament of the knee had been traversed. My object was to divide the popliteal vessel *above the points of origin* of the azygos and inferior articular arteries, which, as you know, are distributed to the interior of the joint. Experience has convinced me that perhaps the most annoying feature in knee-joint amputation is the occasional tendency to secondary oozing from the minute vessels which ramify upon the intercondyloid tissues. These vessels, too small at the time of operation to require ligation, are apt to enlarge as the collateral circulation becomes established, and thus give rise to troublesome bleeding, for which in two or three cases I have been obliged to open the stump. By the high section of the popliteal, as above practised, this vascular supply is cut off, and the liability to this secondary hemorrhage obviated. The gastrocnemial origins I remove in consequence of their tendency to become irritated, their awkward fitting upon the stump, and the excessive suppuration they give rise to. It is much better to get rid of them, for I am quite sure that flaps formed from the muscular tissue of the calf do not, as a rule, do well.

You observe that I have tied the popliteal vein. Experience has taught me that the vein in this amputation is peculiarly liable to gape and bleed unless tied. Whether this tendency to hemorrhage be owing to the firmness of the tissues by which the vein is surrounded, to its numerous branches, or, as Mr. Carden has suggested, to the jar of the popliteal pulsation, I cannot tell. I know that the ligature will prevent the bleeding; I have applied it many times already; and, as I have yet to see the first evidence of trouble, I have had no hesitation in applying it again this morning.

There is yet one other matter, to which I will just allude. You have seen that I have left the condyles of the femur untouched, and that I have not sawn them off. Some of my surgical friends may, and indeed they do, criticise me here, urging that a flatter and a better stump may be insured if the condyles be removed. In answer to them, I can only fall back again on my experiences, which have taught me that a prompt convalescence and a serviceable stump may often be obtained by the procedure I have indicated to you this morning. Indeed, I will go a little further, and say that a very careful comparison of all recorded instances of knee-joint amputation shows that although there is but little difference in the mortality rate of the aggregate of all cases in which the condyles have been left, and of all those in which they have been removed in whole or in part, still that difference is in favor of the former method.

As to the patient before us, I scarcely dare venture a certainly favorable prognosis. We have given him his chance, but it is only a chance. The nature of his disease, its extent, and his general condition are against him, and no one can foretell the issue of his case. Let us hope for the best.

ORIGINAL COMMUNICATIONS.

CASES OF CEREBRAL MENINGITIS.

BY JAMES D. McGAUGHEY, M.D.,
Wallingford, Conn.

THE following cases, that occurred sporadically in country practice, differ in many respects from ordinary simple idiopathic meningitis, and may offer some points of interest. The cases came under my notice while practising South, in a region of country celebrated for the salubrity of its climate and its freedom from epidemics. They did not make their appearance simultaneously or follow each other rapidly, but showed themselves in irregular periods during a space of twelve or fifteen months.

Dr. B. F. Bell, a neighbor and friend, related to me the history of three cases that came under his notice shortly after I saw my first case,—two children and an aged gentleman, with the death of one child and the adult. Several months thereafter I saw my second case, and a month or two subsequently Dr. E. B. Smith treated a case of a young man that proved fatal. Following this one came my third case; and a month or two later I was called in consultation to see a negro child which lay in deep coma, eight or ten days before death. Now, it seemed to me—the cases being scattered over a period of time amounting to thirteen or fourteen months, some in the spring, summer, autumn, and winter—that no peculiar poison in the air, with other modifying tendencies, existed sufficient to cause an endemic or epidemic form of cerebro-spinal meningitis. Two-thirds of the cases coming under my observation had a clear history of either pulmonary tuberculosis or scrofula. One case made its appearance shortly after the discharge of a tuberculous deposit and an apparent healing of the vomica; and another after the discharge and healing of a large scrofulous abscess of the hip. Such cases seemed proof, presumptive proof, against epidemic influence, although the history of some of the cases seemed to approach almost identically to that of some of the cases occurring in cerebro-spinal epidemics. Perhaps, though, a *cerebro-spinal tendency* existing for a period of twelve or fourteen months *may have been the cause* of the susceptibility of those suffering under tuberculosis and scrofula to become the subjects of fatal meningitis. Extending the space

of time from fourteen to twenty-two months, I can count twelve cases of meningitis—cerebral—coming up within a space of seven miles square of a rather thinly settled district, with the result of *eleven* deaths and *one* recovery; one case, the first of the series, in a child one year old, was pronounced to be cerebro-spinal meningitis by the attending physician, a competent man. The cases I saw, in their history and symptoms, resembled sporadic cases of tubercular meningitis more than cases of cerebro-spinal fever.

The following cases I mention are more for individual peculiarities than to discuss their identity with cerebro-spinal meningitis, or to show that the atter was epidemic, or to say anything of the *phenomena peculiar* to that singular disease.

Case I.—W. N., girl, aged 10 years. Complained a day or two of cephalalgia and pain in the limbs. This was on Sunday and Monday. During Tuesday, though walking about, appeared at times delirious. Tuesday night, in bed; lies quiet. Complains of pain in the head; has mild delirium; head not unnaturally hot; eyes, pupils somewhat dilated, and tolerant of light; ears tolerant of sound; face but little flushed, rather pale; tongue coated heavily; respiration regular; had been vomiting; constipated; abdomen swelled, and intensely red all over its surface; almost continuous contraction of the flexor muscles of the right forearm; pulse frequent, but no unusual pulsation of the carotids. A singular phenomenon of the case was the metastasis of the pain from the head to the right hip; and when the pain was in the hip it seemed to be much more acutely painful than when in the head. The muscles of the legs were sometimes spasmodically contracted, continuing in this condition for a considerable space of time, then a relaxation, which in its turn was succeeded by contraction. Thus the case progressed, with a return to consciousness after cold constantly applied, purging, and blistering, but in a short time relapsed into the same condition, with increased frequency of pulse, somnolency, and drowsiness. This condition lasted several days, with considerable conscious intervals, but the somnolency deepened; asthenia made rapid advance; pulse small, and very frequent; eyes glazed, sordes, carphology, and death; profoundly unconscious.

Remarks.—This case did not follow nor show the general order of symptoms of acute idiopathic cerebral meningitis, as laid down in the books. There was no wild delirium; no rapid, bounding, full pulse; no throbbing carotids; no injection of the eyes; no intolerance of light or sound. It seemed in some respects to resemble the phrenitic form of Rilliet. Complete consciousness was not abolished till just a day or two before death, and there were but few symptoms indicating effusion. As the case did not closely resemble acute idiopathic cerebral meningitis, neither did it have the appearance of cerebro-spinal meningitis: "the onset was not sudden," nor "the course rapid;" indeed, there were many and peculiar symptoms of cerebro-spinal fever that were absent in this case, not necessary to mention. On the mother's side there exists *strong tubercular predisposition*, and a *scrofulous diathesis* on the father's side, and, after taking into consideration the complete history of the case, with a close study of it as it presented itself before the eye, I concluded that the diagnosis of tuberculous meningitis would be more correct than that of any other form of meningeal inflammation. C. J. B. Williams, in his work on Pulmonary Consumption, gives, in Case 71, the history of a boy, aged 13, who, *without any premonitions of tuberculosis, was attacked* with meningitis, and died in twenty-one days. On a post-mortem being made, partially *granular tubercles were found at the base of the brain; granular tubercles scattered through both lungs. "One caseous tubercle in right lung; and the right bronchus was also enlarged, with cheesy matter."* Williams remarks on the case, "This case is remarkable *for the entire latency of the pulmonary tubercles*, which must have existed before the commencement of the fatal attack of meningitis." I feel pretty well assured that, if a post-mortem had been permitted, the lungs and brain would have been found in a tubercular condition, although I had no proof of such an assertion, except the strong family predispositions, and the *pale, delicate condition* of the child *before* the meningeal attack. When the pain transferred itself from the head to the hip, it became atrociously painful, extorting cries from the patient. The hip—the right one—was carefully examined by three other physicians besides myself, but no organic trouble could be discovered, neither in the hip, appendix vermiformis, nor any neighboring organ. These curious epiphenomena of pain in the limbs and joints of those suffering under cerebral and spinal disease are very puzzling, and often distressing, and are not easily explained. Mercury was thoroughly tried in this case, without any benefit whatever.

Case II.—Child, 10 months old. Was taken, nine days before my first visit, with vomiting and purging. I could get no accurate history from that time up to my first visit, only that the child seemed to suffer a great deal. When I saw it, it had lost flesh and was weak. Respirations frequent; tongue brownish, dry, and coated; lips and mouth dry; vomited yesterday and to-day; pulse frequent, and weak. Head thrown back spasmodically—lies in this position all the time; eyes rolled up; jumps and starts in sleep; grinds the gums constantly; protrudes its tongue to the full length, and withdraws it, all the time; eyes bright; frets and cries; will not suck; scrofulous abscess on the neck; quantity of urine small; anterior fontanelle raised and strongly pulsating. As the disease progressed, the pulse became more frequent, respirations irregular; convulsions, and vomiting. Convulsions increased, and child sank rapidly.

Remarks.—This case derives interest principally from its history. A month or two previous to the meningeal attack, a very large *scrofulous abscess* formed over the hip, which, on being opened, discharged a large quantity of pus. On this healing up, another abscess appeared on the side of the neck, just posterior to the angle of the jaw; this opened itself after a while, and continued to discharge matter until the meningeal trouble came up, when it ceased, and could not be stimulated to discharging again. As there existed no cause that could explain the case as one of acute idiopathic meningitis, —this disease being rare without a cause, such as blows, insolation, reflex irritation, etc.,—and a strong scrofulous diathesis pre-existing, I con-

cluded the case to be one of tubercular meningitis, although the invariable custom of the country of not allowing post-mortems precluded the possibility of my confirming my diagnosis by actual dissection. No fault could be found with the teeth as a cause; the gums were not swollen. Iodide of potassium seemed not to do the least good. Another symptom of some value was the gradual loss of flesh the child had suffered for some weeks previous to the brain-trouble.

(To be continued.)

FLUID EXTRACT OF CASTANEA VESCA IN PERTUSSIS.

BY THOMAS D. DAVIS, M.D.,

Dayton, Ohio.

HOOPING-COUGH has already so many vaunted remedies, that I hesitate to call attention to one but slightly noticed heretofore. There are so many sources of fallacy in estimating the effect of a medicine in this disease that very many cases are required before a correct conclusion can be obtained. The fickle nature of the disease itself, the surroundings of the patients, and their food, clothing, and attention, all exercise a powerful influence on the course and severity of the attack. It is impossible, therefore, to compare the value of a remedy in the pampered child in its luxurious home, to its effect among those in the lower walks of life, who frequently have improper food, thin clothes, and insufficient warmth. Hence it is with more satisfaction that I present the following fifteen cases, as they were all exposed to the same surroundings, having the same kind of food and clothing, living and sleeping in the same rooms, and all receiving the same care and attention.

In the winter of 1870, while a resident physician in the Philadelphia Children's Asylum, an epidemic of pertussis broke out among the children. They were treated with different medicines until the disease was well marked and some of the cases had assumed a severe type. So severe were the paroxysms that several of the children's eyes were black and blue and very much swollen and congested, from forcing the lids together and pressing them with their hands during the fits of coughing. At this stage, on the suggestion of Dr. J. S. Parry, one of the visiting physicians to the institution, they were put upon the use of the fluid extract of castanea vesca. In order that we might judge correctly of the drug, for two days before using it all medication was stopped. The disease immediately increased, both in the number and severity of the paroxysms. The children were all otherwise healthy, and between four and seven years of age. I have tabulated the cases, so that there can be seen at a glance the number of paroxysms in each case while on the use of belladonna, without it, and for five days after using the other remedy:

Number of Cases.	Paroxysms using Belladonna.	Without Medicine.		Using Fluid Extract Castanea Vesca.				
		1st day.	2d day.	1st day.	2d day.	3d day.	4th day.	5th day.
1	16	20	27	19	11	9	5	2
2	14	24	24	20	9	4	4	2
3	13	13	17	12	5	4	1	1
4	12	16	20	10	6	3	2	0
5	12	18	18	7	4	5	2	1
6	12	15	20	9	5	3	1	2
7	11	11	18	6	4	2	1	0
8	10	9	12	7	2	0	1	0
9	9	12	13	5	4	2	1	0
10	7	9	10	2	2	2	0	0
11	7	8	15	4	3	1	0	0
12	5	6	10	3	1	1	0	0
13	5	7	6	2	0	0	0	0
14	3	4	4	3	1	0	0	0
15	2	4	5	4	2	0	0	0

In this table the cases are arranged in the order of their severity while on the use of belladonna. The first eleven cases all had the characteristic whoop; the remainder had well-marked paroxysms, but not the full spasm, and they recovered without having it. In each case the violence of the spasm was reduced even more markedly than the number of the paroxysms. On the days on which the cases are marked as having no paroxysms, they had slight coughs, but no sign of spasm whatever. The castanea was continued for a week, after which, in a few cases, a simple expectorant was given. The nurse in charge, who had witnessed many epidemics of the disease, declared she had never seen a medicine act like it.

This medicine is made from the leaves of the common chestnut-tree,—Castanea vesca, natural order Cupuliferæ. Another species of this genus, Castanea pumila (chinquapin), for some time held a place in the secondary list of our Pharmacopœia; the bark of this was an astringent and tonic, and was employed also in the cure of intermittents. The first mention I can find of chestnut leaves as a remedy was in a paper read before the American Pharmaceutical Association, in 1862, by Mr. George C. Close, of Brooklyn, N. Y. (*Am. Jour. Pharm.*, 1863.

p. 66). They were recommended to him as a cure for pertussis by a "prominent physician of New York," whose success with them had been very marked. He administered an infusion of them made with boiling water and sweetened with sugar, and reports that in every case it "acted like a charm."

Dr. J. Unzicker, of Cincinnati, called attention to this remedy, with a very favorable account of its virtues, in an article written in 1867 (*Med. and Surg. Reporter*, October 26, 1867, p. 355). He claimed that it had never failed in his hands to cure or relieve the spasm and bring the disease to a speedy end.

Dr. J. Ludlow, of the same city, commended it highly in articles written two years later (*Cin. Lan. and Obs.*, March, 1869, p. 147, and *N. Y. Med. Jour.*, April, 1869). He gives the credit to Dr. Unzicker for having brought it to his notice first, and says, "In every case that I have treated since, I have invariably used it, and with the happiest result,—in from five to ten days relieving the spasm, and in about two weeks curing it." All of these observers used an infusion of the leaves.

In a paper presented to the Philadelphia College of Pharmacy, Nov. 21, 1871, by Mr. John M. Maisch (*Am. Jour. Pharm.*, Dec. 1871, p. 529), he announces that since 1867, at the request of Dr. A. S. Gerhard, of Philadelphia, he had collected chestnut leaves, and had prepared of them an infusion, syrup, and fluid extract, of which he greatly preferred the latter preparation. He speaks in the highest praise of the medicine in hooping-cough, but mentions two cases in which it did not appear to be of benefit. Mr. Maisch is the only druggist who has preparations of this article: it was his fluid extract that we used in the cases reported. The leaves are gathered from July to October, the preference being given to those procured late in the season. The following is Mr. Maisch's formula for making the fluid extract: Chestnut leaves, dried, cut, and bruised, sixteen ounces; glycerin, five ounces; sugar, eight ounces; and hot water, a sufficient quantity; the extract to measure sixteen fluidounces. His method of preparing this extract is given in his paper. The dose is half a teaspoonful to a teaspoonful every three or four hours, for a child six years old. In urging this remedy upon the notice of the profession, we do not claim for it a specific action, but think it will be found a valuable anti-spasmodic and expectorant, the preparations of which are not unpleasant, and are, therefore, readily taken by children. In the cases we have cited, we are sensible that in the most of them treatment was begun in the height of the disease, and we might consequently expect a decrease in its severity, but scarcely such a marked decline as our cases indicated under the use of chestnut leaves. As a domestic remedy, an infusion of the leaves has been used for many years in regions of the country where this tree flourished.

THE *Dublin Gazette* has published an order prohibiting the importation of horses from America.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR S. D. GROSS, M.D.

Reported by FRANK WOODBURY.

TRACHEOTOMY.

THIS boy, five years of age, comes to us with a probable history of having inhaled a button or a large bead into his trachea. Twenty-six days ago he came running into the house and told his parents that while holding such an article in his mouth it slipped down the throat, producing a severe attack of coughing, with symptoms of strangulation. This statement was not credited; but a subsequent attack, five hours afterwards, seemed to confirm it. These attacks, of which he has had several since, are attended with great dyspnœa, with apparently impending suffocation, and are evidently caused by the article coming up against the glottis in expiration. Within a few days, symptoms of pneumonia, with fever, cough, and solidification of part of the right lung, have supervened, inducing the attendant to summon me last evening, in consultation. After examining the patient, I concluded that the foreign substance had not yet been expelled, and recommended opening the trachea for the purpose of extracting it. I told the parents that the child might, during one of these attacks of coughing, suffocate in an instant from spasm of the glottis, but, if not relieved, he would, in a short time, certainly perish from the induced pneumonia. I therefore advised tracheotomy to remove the offending substance as the only chance of saving the patient, and I have brought him before you with the object of performing that operation.

On applying the ear we find at the right side of the chest that the respiratory murmur is indistinct, and there is evident bronchophony; there is not absolute percussion-dulness, because in these cases the air never entirely escapes from the lung. He has the rusty sputum this morning, making him an unfavorable subject for operation, as we may not be able to control this pneumonia even after removing the article. Recorded cases show that when the operation is performed immediately after the accident, it is far more likely to be successful than when delayed until the occurrence of inflammation.

The foreign substance may, in a coughing-fit, be expelled unconsciously by the patient, or it may be extruded from the air-passages and slip down the œsophagus unnoticed into the stomach. In either event, the resulting local inflammation, produced by the parts resenting the presence of the intruder, may maintain the irritation and strongly simulate the original symptoms. This fact makes us reluctant to operate, unless we observe the characteristic rattling sound produced by the motion of the substance upward and downward in the trachea during expiration and inspiration. The time since its introduction, in the present case, is sufficient for it to have become plugged in one of the larger bronchi from the increased secretion of mucus, which has probably taken place since those violent attacks of coughing have ceased. The diagnosis is always obscure in these cases; but the symptoms here warrant the operation, especially as the wound is not necessarily dangerous. The article may be expelled during the violent fit of coughing which always ensues upon opening the trachea, or perhaps not for several days, or not at all; it may either come through the opening or through the mouth, or may pass unnoticed down the throat.

The left bronchus is given off from the trachea quite

obliquely, while the right one is almost a direct continuation of the tube; this explains why a foreign substance generally falls into the right bronchus and affects the right lung.

Tracheotomy is a delicate, and in some cases a most difficult, operation, especially in croup,—where the patient has generally a short, fat neck, and keeps constantly crying and struggling. Amputation at the hip is much easier to perform. Having the patient recumbent and well influenced by ether, the trachea is made prominent by elevating the shoulders and throwing the head back. The external incision should extend along the middle line from the cricoid cartilage almost to the top of the sternum. The ribbon-like muscles are separated and the deep cervical fascia divided on a grooved director, when the thyroid plexus of veins are seen, which must be pushed to one side, as they are congested, and if cut would bleed freely. Occasionally the inferior thyroid artery is replaced by a small branch arising from the innominate artery, arch of the aortæ, or left subclavian, which passes up in front of the trachea to the thyroid gland: this is named, in honor of the German surgeon who first described it, the artery of Neubauer, or the middle thyroid, and is present in one out of four or five cases. If this is cut it must be secured, with any other bleeding vessels, and all the blood removed from the wound before the trachea is opened; this is of great importance. Fixing the trachea with the volsella, a probe-pointed bistoury is entered at the lowest point, with its back to the great vessels, and four rings of the trachea are opened, being careful to avoid wounding the isthmus of the thyroid gland. The patient is then immediately turned on his side,—not on his belly,—to avoid bleeding into the trachea, the inhalation of a single drachm of blood having been known to cause death. The mucous lining of the tube, from the continued irritation, is generally congested, and bleeds freely. The edges of the trachea are held apart by a pair of forceps during the violent fit of coughing, which extrudes a quantity of mucopurulent fluid, but not the foreign substance. The patient is inverted, succussion and percussion of the chest are practised, without the desired result. Ingenious instruments have been devised to explore the trachea, a number of which I here show you; they may be useful in some cases, but they are capable of inflicting irreparable mischief.

An anodyne will be given immediately, and the patient kept in a room whose atmosphere shall be kept moist and at about 85° Fahrenheit. The article may be expelled at any time before the closure of the wound, over which a fine piece of gauze is placed, to exclude dust, etc.

A curious circumstance connected with the operation is that the irritability of the larynx and tendency to reflex spasmodic closure cease the moment an incision is made into the trachea, so that instruments may now be introduced into the glottis with impunity. The parts, therefore, are in a better condition to tolerate the presence of the intruder, and a fatal result from spasm of the glottis need no longer be feared. Before the operation the patient is never safe so long as the substance remains, as instant suffocation may ensue upon a fit of coughing. In 1854 I analyzed all the cases on record, and found that this result had occurred in a large proportion of them.

Nov. 2.—The patient died five hours after the operation, from exhaustion.

At the post-mortem examination the wound was found ample for the extrusion of the substance, which was discovered deep, but not exactly impacted, in the right bronchus. The offending substance was this black glass bead. It measures about one-half an inch in length, and is perforated and elliptical in shape. About four ounces of fluid containing flakes of fibrin were found in the right thoracic cavity, showing the extension of the inflammation to the pleura.

FALSE ANCHYLOSIS OF THE HIP-JOINT.

This young woman has had trouble in her left hip for three years, which has resulted in total inability to move the limb.

You observe that the gluteo-femoral crease on the affected side is absent: there is no line of demarcation or fold between the buttock and thigh. The great trochanter is unusually prominent. This portion of the femur is liable to disease such as necrosis, or chronic inflammation of a strumous or syphilitic character. This might go on to thickening of the tissues of the joint, and even lead to anchylosis from extension of the inflammation, or it might result in tuberculosis and produce coxalgia.

In the treatment of this osteitis, or periosteitis, of the great trochanter, counter-irritation is especially useful. Vesication may be tried; but the actual cautery is much better, making an issue to last several months. Inflammation extending to the neck of the bone may produce softening and interstitial absorption, with consequent shortening; this may also be produced by a fall or violence, or arise spontaneously, as in old persons. After an injury the surgeon may assert that the bone is not broken, and yet shortening and deformity may follow, leading the patient to the belief that there was a fracture which the attendant failed to recognize and to treat properly. In this way, a few years ago, several gentlemen were sued for malpractice; but no damages were obtained, and it would have been very unjust if any had been allowed.

There is no syphilitic history to the case; nor is this a strumous affection of the joint, or there would have been an abscess formed here long ago. It is probably rheumatic or due to an injury which has been forgotten. I bring her before you for the purpose of breaking up these adhesions in the joint, under chloroform. I find some mobility but no voluntary motion in the joint. On rotating the limb there is a grating sound, produced by the presence of organized lymph; there is partial destruction of the synovial membrane, and the articular surfaces are dry from absence of synovial fluid.

Having flexed the joint and broken up the adhesions, we will order passive motion to be practised twice every day, in order to prevent their re-formation. The limb is to be washed every day with Castile soap and water, and the joint rubbed several times daily with,

℞ Tr. saponis camph., f℥iv,
Spts. ammoniæ, ℥j. M.

and as a tonic,

℞ Tr. ferri chlorid., gtt. xx,
Hydrarg. chlorid. corros., gr. $\frac{1}{20}$. M.
S. t. d.

ENCEPHALOID TUMOR.

This middle-aged gentleman comes from southwestern Virginia, on account of a tumor occupying principally the left temple. This commenced eighteen months ago as a little nodule, without apparent cause; and is now as large as a goose-egg. It is situated over the zygoma, and extends forward and upward on the cheek, and backward behind the lobe of the ear, and deep under the parotid gland and beneath the sterno-mastoid muscle. The skin over it is discolored, and, in one spot, ulcerated. It is quite solid above and tender to pressure. It has not been attended with much pain, which occasionally is dull and aching. An ineffectual attempt was made to remove the tumor seven weeks ago, but it was rapidly reproduced. There are no enlarged cervical glands.

Whether this commenced in the cellular tissue or in the parotid gland, I am unable to say, but it is certainly malignant, and either an encephaloid or a round-celled sarcoma. I do not deem it proper to interfere in this case with the knife, as it would quickly return after operation; all that can be done is to make the patient comfortable.

Mr. Broadbent, of London, some years ago recommended injection of a few drops of acetic acid into the substance of malignant growths, to accomplish their disintegration and destroy the morbid action. A diminution of the size of the tumor is reported in some of his cases to have followed this treatment, but in the few cases in which I have tried it I have failed to perceive any good result.

ADENOMA.

This patient, æt. 70 years, complains of a constant, and at times intense, pain in this swelling on the side of the neck, which commenced three months ago. There is a hard, circumscribed tumor, partially under and behind the sterno-mastoid muscle, and somewhat movable.

This is probably a diseased lymphatic gland, but, as it may take on malignancy, it is best to remove it. In operating upon the neck, always have the jugular vein compressed so that, in case it were accidentally cut, no air would be drawn into the circulation. If this did happen, it would cause the death of the patient in the twinkling of an eye, from the mechanical obstruction to the circulation, produced by the air-bubbles. We find the tumor deep-seated, and extending towards the pharynx, whence we will carefully remove it by enucleation and avulsion. It is a gland in a state of enlargement and partial suppuration. The wound is united by sutures, and allowed to heal under a water-dressing. An anodyne will be given as soon as the patient recovers from the influence of the anæsthetic.

Perforation of the Frontal Bone by a Gun-Shot Wound (Lederer: *Wiener Mediz. Presse*, Oct. 13, 1872).—The following case shows how great an injury the human organism may survive:

"A hotel-keeper, who had the misfortune to live in a very disorderly district, was annoyed one night by the abusive language of a man and a woman who had stationed themselves under the inn-keeper's window for the purpose of annoying him. The landlord, greatly incensed at this conduct of his patrons, seized a loaded double-barrelled gun from the wall and fired at random into the darkness of the night. One shot struck the man on the right temporal region and orbit, and left behind many traces in the shape of shot, which penetrated from one line to one line and a half into the skin. The second shot had felled the woman to the ground. I was called immediately to the latter. I found her lying on the floor in her own house, fully conscious, and was able by the light of an ordinary candle to see that the frontal bone above and between the eyebrows was broken through, in a direction from right to left, and outward and inward. I was able to thrust my finger an inch into the wound without meeting anything but splinters of bone. What the gun was loaded with remains a mystery to me to the present moment. And, improbable as it may seem, the load, after it had fractured the frontal bone, fell from the wound and was lost. The edges of the wound were blackened by powder, and the hemorrhage was slight. After removing the splinters of bone I filled the wound with charpie and ordered it to be dressed with compresses steeped in ice-water, which was continued during all of the next day.

"The hemorrhage ceased entirely, and never returned, and, without any loss of consciousness on the part of the patient at any time, suppuration set in, in the wound, after a few days. At night there was some delirium, but I always obtained perfectly intelligent answers to all my questions put to the patient. In the course of time, as the suppuration became more copious, the cold-water dressings were abandoned, and careful cleansing by means of tepid water carefully kept up, small doses of morphia administered, the diet regulated, and, as from the beginning, the strictest quiet enjoined. In the course of a few weeks, several pieces of bone came away from the depth of the wound, which were, in all probability, pieces of the wings of the sphenoid bone; and now I beheld a spectacle which should have been seen with one's own eye in order to have been fully appreciated. I saw at the fundus of the wound, which was about one inch and a half in depth, the fissure between the hemispheres of the brain, and parts of the anterior and inferior surfaces of the hemispheres of the brain, covered with the arachnoid and pia mater,—the dura mater having been destroyed during suppuration. I also saw one of the larger arteries pulsating synchronously with the systole and diastole of the heart, and the entire brain was distinctly visible in its motion, forward and backward, as well as upward and downward.

"Since some pus still remained in the deeper parts of the wound, at each recoil of the brain a little air-bubble formed, which burst with the well-known gentle noise at each forward movement of the brain. The patient was seen repeatedly by me, and the phenomenon observed with great interest, until at last granulations hid it from view. By the 24th of October the wound had nearly filled up with granulations, and, the patient moving to another town, I lost sight of the case."

Seven Tæniæ in One Patient, without Symptoms.—The following case is quoted in the *Boston Medical and Surgical Journal* from the *Journal de Méd. et de Chir. Prat.*, July, 1872:

The patient, a hospital nurse at Lariboisière, aged 25 years, had been ill for a few days, with general lassitude, with pains in the epigastrium and left chest. There was no morbid manifestation to draw attention to the alimentary canal; and none of his antecedents led to the suspicion that he was infested with intestinal worms. One morning he noticed in his dejections flat, ribboned, and white masses, which proved, on examination, to be fragments of a tænia. He was ordered twenty grammes (about five drachms) of kousso, very finely powdered, infused in about eight ounces of boiling water, and allowed to stand over-night. He took the whole, powder and all, warmed up and well mixed. In an hour and a half he experienced a little intestinal commotion, and some colicky pains. A dejection soon followed, with considerable masses of interlaced tæniæ. A second dejection, half an hour afterwards, brought away still more. A dose of castor-oil, now given, produced liquid evacuations without further fragments of worms.

On examination of the vermicular mass under water, seven heads of tæniæ were detected, which were also verified by the microscope. The tæniæ, unrolled, measured from one and a half to nine yards in length; or a total, with the other fragments, of about twenty-two yards.

The next day the patient returned to his occupation. On further inquiry, no indications could be discovered which, if previously known, would have led to a diagnosis. He had never partaken of raw meat, nor often eaten sausages.

The case is remarkable for the number of entozoa, and for the readiness with which they were dislodged. The latter may be due to the fineness of the powdered drug and the long time allowed for its infusion.

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SATURDAY, DECEMBER 28, 1872.

EDITORIAL.

THE PUBLIC MEDICAL SERVICE.

CERTAIN duties have to be rendered by physicians to the public, or at least in the public behalf, which ought, as it seems to us, to be placed on a different basis from that upon which they rest at present. These duties vary widely, and are often of great importance; but we propose now to speak of but two of them, with regard to which we think the existing system can be easily shown to be faulty.

In the first place, as to post-mortem investigations made by order of the coroner. We urge that the medical man employed to attend to this duty should be a sworn officer, duly and formally appointed, and with one or more deputies similarly qualified. It is by no means certain that the free choice of the incumbent of the coroner's office would always be so unobjectionable as at present. Dr. Shapleigh has for many years steadily won upon the confidence of the community, by his fidelity in carrying out the often unpleasant tasks intrusted to him. We should like to see him made, by appointment, say from all the judges of the criminal courts in the city, on the nomination of the coroner, a qualified officer, either for a specified term or during good behavior; with two deputies holding their positions by like authority and for a like term. Very possibly some other mode of selection might be suggested, but it seems to us as if this would be highly appropriate, since it would place the appointment in the hands of those with whom the duties to be discharged would bring the incumbent into most constant contact, and by whom his efficiency and faithfulness could be best appreciated.

The community has now no guarantee that in case of any circumstances depriving them of the valuable services of Dr. Shapleigh, his successor might not be either ignorant, negligent, or venal; and a very slight consideration only is needful to perceive that in such case most important interests of public or private justice might suffer. We therefore urge that a law or ordinance ought to be passed, providing for the regular appointment of a surgeon, with one or more deputies, and suitably prescribed fees, to aid the coroner in his special department.

The other duty is that of medical attendance in police cases. As the matter now stands, physicians are called upon by the mere chance of neighborhood, and with a very slim chance of payment, to afford what services are needed at the police stations, or in cases which come under police notice. We submit that here, as in London, Paris, New York, and many other large cities, there should be a regularly appointed board of Police Surgeons, whose term of service, duties, and fees should be prescribed by law.

It would not need any long course of argument to show how greatly the interests of the public would be secured by such an arrangement; while we could easily adduce cases in point to prove that they now suffer. The fearful state of things shown up in the daily papers a week or two since as existing at the "sub-station" in one of the worst and most thickly-populated sections of the city, could scarcely have been possible with medical sanction.

For the present, we shall be content with merely calling attention to these matters, hoping that they may be taken up and discussed until some deliberate and well-considered action may be the result, to the greater security of public and private interests.

JEFFERSON COLLEGE HOSPITAL.

THIS enterprise, rendered a necessity by the change which has come over medical teaching in this country, has been in effect placed by the trustees of the college in the hands of the Alumni Association. It is as yet but in its infancy, but the vigor and determination of its friends will insure its rapid growth and the thorough development of all its capacities.

We cannot better give our readers an idea of the present status of this project than by laying before

them an extract from the minutes of a meeting of the Alumni Association, held December 17; for which we are indebted to the Secretary, Dr. Mears:

"The committee suggested as a plan of organization —first, the collection of subscriptions contingent upon the raising of $250,000 by private subscription by the 10th of June, 1874, for the purchase of a new site, and for the erection thereon of a new College and College Hospital building, and for the support of the latter; second, an appeal to the State Legislature for an endowment of at least $100,000 for said hospital, such appeal to be made in connection with the Trustees and Faculty; third, the private subscriptions, to be called —first, from the resident Alumni, second, from the Alumni throughout the country, third, from the city at large; and that a committee be appointed from the Association, exclusive of the Faculty, with power to act in conjunction with the committees to be appointed by the Trustees and Faculty.

"It was resolved, on motion of Dr. J. H. Brinton, that the Executive Committee be requested to take the necessary measures for the securing of a new site and the erection thereon of a new college, with a college hospital attached, and the means for the support of the latter.

"Dr. Gross made an address, urging the need for increased accommodations, so as to form a museum, library, have chemical manipulations, a hospital with from fifty to seventy-five beds, etc., to secure which a large amount of money would be needed. He stated that they did not intend to move the college across the river, and believed they would have an increased number of cases by not doing so. The college was to have a future, which future depended on the action of the Alumni. No other college could boast of such prosperity as it has had in so short a time."

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

ANNUAL MEETING, NOVEMBER 12, 1872.

Reported by JAMES S. BAILEY, M.D.

DR. JOSEPH LEWI, PRESIDENT, in the chair.

THE Treasurer, Dr. D. V. O'Leary, read his report, and announced that the Society was out of debt, and with a surplus of funds on hand.

The Chairman of the Board of Censors, Dr. James P. Boyd, reported favorably upon the admission as members of Drs. R. H. Starkweather, John H. Lagrange, and Gilbert H. Uhlman. They were elected members.

The President's address being next in order, Dr. Joseph Lewi then delivered the following upon

IDIOPATHIC PERITONITIS.

The variety of cases of peritonitis, as well as the many different causes by which this malady is contracted, make it very laborious for authors to dwell in detail on each; and while the student is allowed to profit in general knowledge by reading the lengthy articles about peritonitis, he does not derive the necessary information for the management of his cases.

And very naturally so. In most of the cases, peritonitis is the result of a traumatic injury, and the surgical as well as the medical treatment must depend upon the extent of the injury done to the peritoneum and adjoining parts. In other instances, peritonitis is due to effusion of the contents of an abscess into the cavity of the abdomen, or it is the result of a strangulated hernia, in all of which cases the treatment of the peritonitis will be subordinate to the general surgical treatment.

Peritonitis propagated from inflammations of other adjoining organs—stomach, liver, spleen, intestine—are considered and treated as secondary.

To puerperal peritonitis authors devote deservedly particular attention, on account of the frequency of cases, of the virulence of its character, and the great mortality resulting from it at certain times in certain localities. The above-named kinds of peritonitis are especially favored by the different authors of the present time with minute description of the nature, the symptoms, and the treatment of the same, leaving for the *idiopathic*, or, as some call it, the rheumatic peritonitis, only a little space, under the idea that this malady, contracted by a cold, is very rare and hardly ever attacks persons in general good health.

Although this last-mentioned kind of peritonitis is not so frequent as inflammations of other fibrous membranes, especially the pleura, I venture to maintain that peritonitis, especially in childhood, say from two to fifteen years of age, is of more frequent occurrence than pericarditis, and, from causes to be stated, more fatal than pleurisy. I will also state here that a twenty-six years' practice has taught me that this malady presents to a young practitioner more difficulties in forming a diagnosis and adopting a mode of treatment, and more embarrassment in giving satisfaction as to the prognosis, than any other inflammation. I therefore propose to say in this address a few words on *idiopathic* peritonitis.

Sometimes there are no premonitory symptoms; but in most of the cases a chill, slight or violent, will compel the otherwise well-appearing individual to retire from his avocation. After six or twelve hours the inflammation will, in very distinct cases, manifest itself by an intense fever, frequency of the pulse, high temperature, and a more or less violent pain in one or the other side of the abdomen, which side or spot will be very sensitive to the touch, so much so that the pressure of the bed-covers will be intolerable; the patient lying immovably on his back, his lower extremities drawn up. The patient talks little, and in a low tone. After a shorter or longer period the abdomen becomes bloated and filled with gas, which crowds against the diaphragm to such an extent that the lungs are compressed and impeded in their action. Respiration becomes difficult and frequent. Constipation and vomiting most generally accompany these symptoms of ante-peritonitis. In fatal cases all these symptoms increase in intensity, the abdomen becomes hard and tympanitic, the lungs and heart become so compressed that the respiration is very laborious, and the agony of the patient is terrible. At last he becomes apathetic and delirious, the pulse grows smaller and more frequent, the skin is covered with a cold sweat, and the patient dies. In a great many cases the disease does not reach such a desperate height. The symptoms having culminated, the intolerable pains and difficulty of breathing grow gradually less and less severe, and the patient recovers after the lapse of a few days or weeks.

And in some instances, even after the malady has assumed all the bad features described above, it makes a retrograde movement; the symptoms come to a stand-

still, absorption of the infiltrated blood takes place, or an abscess forms, the contents of which either discharge through the walls of the abdomen by nature's effort or by surgical interference, or they penetrate into the adjoining rectum or bladder, whence they are expelled with the fæces or urine,—and the patient may recover entirely, or may be troubled temporarily, or for the remainder of his life, with the results of this extraordinary termination of the disease.

So far the regular process of cases of idiopathic peritonitis, as described by most authors and known to all practitioners.

The management of such cases of peritonitis was, as late as twenty-five years ago, strongly antiphlogistic. Blood-letting by venesection and the application of leeches, mercurial preparations internally and externally, scanty nourishment, and the mildest of drinks in the inflammatory stage, absorbents internally and blisters externally in the stage of exudation,—such has been the treatment prescribed by the authors of former times. This plan has now been almost universally abandoned as irrational and pernicious, and, although it has been demonstrated that by promoting the peristaltic motion of the bowels the symptoms of inflammation will become aggravated, and the inflammation extend, and that the loss of blood (by venesection or leeches) will add so much to the general debility resulting from the disease itself, as to destroy the energy of the constitution of the patient so essential to reaction, and although we must admit that vast numbers of the human race have suffered an untimely death by this course, my long experience and close observation compel me to say here that there are exceptional cases of peritonitis where the application of leeches, and even venesection, is not only permitted, but imperatively demanded to save the life in some instances, and to bring on a speedier recovery in others. If a person extraordinary in development and plethoric in appearance is, after exposure, etc., seized with all the above-described abdominal symptoms to such a degree as to bring, within twenty-four hours, his pulse to 120 or 130, the temperature to 103°, and the respiration to 40 or 50; if delirium and a cyanotic appearance of the face should accompany these symptoms, a practitioner is, in my opinion, not only justified, but morally obliged to resort to blood-letting. I have seen in a large number of cases the most beneficial results from it.

The circulation and respiration improved so much that the inflammation took its natural course and was in time conquered by less heroic means; and it is to be presumed that in a majority of these cases the violent onset would have destroyed the patient before the disease had fairly developed, and before any other measure could have made any impression on the system thus disturbed.

But, with the exception of blood-letting in such exceptional cases, and counter-irritants in the later stages of the disease, all the appliances belonging to the antiphlogistic and depleting mode of treatment ought to be relinquished for all time to come.

In a great many, and, as my experience tells me, in a majority of cases of idiopathic peritonitis, the course is irregular, and therefore not easily to be distinguished from other complaints of the abdomen; and if the practitioner does not take heed, and is over-hasty in forming a diagnosis, the patient's life may be endangered, and with it the reputation of the physician.

In such cases the patient becomes indisposed and morose, loses his appetite, and complains occasionally of a dull, annoying pain in the abdomen. Aversion to all kinds of solid food, and an inclination to vomit, satisfy him or his neighbor that his "stomach is out of order," and a "good, strong physic" is taken on his own judgment, or on the advice of somebody. The remedy so taken generally distresses the patient more or less; he tries, and after awhile succeeds in throwing up the same, with whatever eatables were contained in the stomach, with a good portion of bile. After being relieved of the distress, but exhausted from the exertion of vomiting, the patient imagines that he feels better; but soon after he complains again about the pain all over the abdomen; and at this stage only, even in better classes of society, the physician is sent for. The patient explains to the doctor that "he is not sick; that his stomach was only out of order for the last few days; that he was constipated; that the physic he took seems not to have been strong enough for his constitution; that he vomited the medicine as well as bile, and that a strong laxative to remove the bile would probably be the best for his case."

The physician examines the patient, and ascertains that there is a circumscribed space on the abdomen painful to the touch; that there is no expansion of the abdomen, no tympanites, no fever; all the symptoms of the digestive organs correspond to the narrative of the patient, and he is very apt to act according to the suggestion of his patient, and to aggravate the case most decidedly. If the proper course is adopted, the patient will have the benefit of temporary relief under all circumstances, and, if it turns out to be a mild case, may recover within a few days. If it is a bad case, the symptoms will develop in the course of a day or two, so as not to leave any doubt in the mind of the physician about the nature of the disease and the necessary remedies, and then it will be time to adopt a mode of treatment in accordance with the suggestions of the modern authors. However difficult it may be in the primitive stage of all such cases of semi-acute peritonitis to make a correct diagnosis, and however often the practitioner may become guilty of misconception and the introduction of improper treatment through the interference of the ignorant patient, it is far more difficult to avoid mistakes in similar cases of children under six years of age. Compared with other disturbances of the abdominal part of the body, peritonitis is of such rare occurrence that the parents or guardians, in most cases, resort either to laxatives in the form of castor-oil or rhubarb, or to very drastic vermifuges, and before the physician is called all the mischief is done and the case is desperate. The slight local pain has changed into a violent, excruciating one all over the abdomen. The physic given has not evacuated the bowels, but has caused them to swell up and to be sensitive to the touch. Insatiable thirst, high fever, and a tendency to vomit, are the results of the harmless medicine given yesterday. The physician, if not ripe in experience, is liable to misconception, where the history of the case is given to him by a talkative mother, who prejudices his opinion of the case; and where the general as well as the local symptoms of the inflammation are so indistinct as described above, he is the more liable to make a mistake as the patient is not sensible enough to describe his condition, correct the misstatements about the course and duration of his complaint, and, in his peevish condition, not inclined to answer questions. Misled in this primitive stage of the disease, and induced to administer purgatives, the physician will only find out his mistake when it is too late to correct it, and when, in consequence of his injudicious interference, the symptoms have assumed such a character as to make the prognosis very unfavorable. To avoid the commission of such mistakes in similar cases, I would advise all young and inexperienced practitioners to take the utmost pains in making the examination; to be reserved in expressing a decided opinion at their first and second call; to adopt an expectant course, and to use only such palliative

remedies as will be beneficial to the patient; and to avoid all measures that could in any event have a tendency to promote the peristaltic motion of the bowels or to irritate the serous membranes of the abdomen.

Warm applications in the form of wet flannel or poultices, small doses of opiates in the form of Dover's powder or a solution of morphia, mild drinks, a horizontal position, and positive rest, will, in most of the cases, accomplish a cure and speedy recovery. In some cases the disease may assume a chronic course and require absorbents, counter-irritants, and tonics; in other instances the above-described semi-acute inflammation may after a few days develop into a very violent acute inflammation, and require a more heroic treatment.

But, under all circumstances, even if the diagnosis should turn out to be incorrect, and the patient should suffer from colic or worm-fever, or the painful spot should develop into a muscular abscess, no harm will have been done and no aggravation of the symptoms caused by the mode of treatment adopted.

In all cases of suspected peritonitis where the symptoms are not distinct and conclusive, the physician should call to mind all the diseases that could be mistaken for peritonitis. Catamenial colic, uterine colic, hysterical pain in females, pains from indigestion, bilious colic, nervous colic, inflammation of the duodenum, of the stomach, or of the liver, enteritis, retention of urine, worms, and wind-colic, present in some instances symptoms similar to those described in semi-acute peritonitis. The physician may ascertain the nature of the disturbance by closely examining whether his female patient is at or near the period of menstruation, or whether she is pregnant; he may also be able to determine in a great many of these obscure cases that the tenderness and pain indicating peritonitis are dependent upon the irregular functions of some disordered digestive organ, or the presence of worms or gas in the intestines, and proceed energetically to relieve the patient at once; but if there remains a shadow of doubt in his mind about the existence of an inflammatory process in the peritoneum, he must content himself with the administration of such remedies and appliances as to relieve the patient of pain and distress, to give him the necessary rest and comfort, and to keep his strength and vigor intact for the expected struggle.

Now, gentlemen, let me congratulate you on the happy termination of another year of the Society's existence and prosperity; let me thank you in the highest terms for the support given me, for the numerous attendance at the meetings, for the interesting contributions and instructive debates, as well as for the peace and harmony maintained during the last year's administration. Allow me, gentlemen, also to draw your attention to the memory of one who has been associated with this Society for more than half a century, who has been a useful and efficient member of this as well as the State Medical Society, and who departed this life, after having labored faithfully in the profession that he loved so well for more than fifty years, ripe in years and honored by the profession as well as the community. I allude to our brother the late Dr. Peter Van Olinda; and, while we deplore his loss, it is a matter of congratulation that this is the only loss by death our Society, numbering one hundred and fifteen members, has sustained; and he almost an octogenarian. You have this year admitted fifteen new members,—the largest number during one year since the existence of the Society.

The Society then elected the following named officers, viz.,—

President,—Dr. Albert Van Derveer.
Vice-President,—Dr. A. W. Shiland.
Secretary,—Dr. F. C. Curtis.
Treasurer,—Dr. William H. Murray.
Censors,—Drs. J. P. Boyd, S. H. Freeman, J. N. Northrop, P. P. Staats, C. E. Whitbeck.
Delegates to the State Medical Society,—Drs. Charles A. Robertson, Henry March, Amos Fowler, Daniel V. O'Leary.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Dr. J. G. Stetler, Vice-President, in the chair.

At a conversational meeting held November 13, 1872, at 8 o'clock P.M.,

Dr. Washington L. Atlee reported the following case. On the 23d of last September he was called to see a lady, 63 years of age, who came to the city from the interior of the State. Previously she never had any disease, and she had no hereditary taint or morbid diathesis of any kind. During the past winter she took cold easily, and complained of general malaise. Early in March last the left side of her throat became affected, the submaxillary gland on the left side enlarged. Tumors then formed in both axillæ, in the parotid regions, and in the groins.

When he saw her first, on the date above mentioned, she was in a cachectic condition, could not articulate, and deglutition and breathing were difficult. The tumor on the left side extended from the external ear to the shoulder; on the right side the tumor was only one-half this size. The sublingual and submaxillary regions were both enlarged. The axillæ were so filled up that the arms stood out from the body a considerable distance. The upper and lower extremities were œdematous. The mouth was filled with a tumor from its middle back into the pharynx, thrusting forward the soft palate, so as to make it become the anterior and upper wall of the tumor, interfering with respiration, deglutition, and speech.

She came to me, thinking to have it extirpated. On the surface projecting beneath the soft palate there was an ulceration the size of a silver half-dollar. These tumors were so hard and immovable that, had it not been for their general distribution, Dr. A. would have considered the disease to be scirrhous cancer. An isolated tumor of such a character, occurring at this age, and accompanied by such decided cachexia, he would not hesitate to pronounce malignant. The growth had been exceedingly rapid; and different modes of treatment, including electrolysis, had been tried, without any improvement. Hesitating to call it malignant, he had given an unsatisfactory diagnosis and a very unfavorable prognosis; but to-day the patient is well, the tumors having disappeared almost entirely. The treatment had been simply three drops of Fowler's solution and ten grains of the muriate of ammonia three times a day, with a locally-applied solution of muriate of ammonia.

Dr. Atkinson spoke of a case in the person of a woman with a child six months old. He had first seen her three months ago, and had been attending her at the Howard Hospital. He considered the trouble to be an ovarian tumor, and had been prescribing ten grains of the muriate of ammonia three times a day. On this statement of Dr. Atlee, he would continue it, with the addition of three drops of Fowler's solution three times a day.

Dr. O'Hara asked if these swellings were not adenoid enlargements from chronic adenitis. He recalled a case in which there were persistent tumors on both sides of the neck, resembling, on a small scale, Dr. Atlee's case, in which arsenic, iron, and iodide of potassium had been used for months, but which now

seems to be improving under iodide of mercury and cod-liver oil.

He also mentioned, in connection with the subject of arsenic, that, owing perhaps to idiosyncrasy, arsenic at times, like mercury, can be exhibited and continued in almost enormous amounts. One of his patients has taken arsenic for twenty years, at intervals, at his own discretion, for psoriasis. To his knowledge he has taken one-tenth of a grain three times a day for six months, always with benefit to the skin-affection and with no apparent ill effects. He asked whether any gentleman had used decolorized tincture of iodine externally. By the addition of hyposulphites to the tincture it can be made transparent, and its external application would not stain the skin. He also added that he had seen a case of epithelial cancer of the vagina, pronounced such by himself and an eminent professor, which seemed to be cured by arsenic and the local application of iodine and the permanganates. This patient subsequently bore a child, and locally there is no trace of the disease.

Dr. ATLEE said that his case was neither one of adenitis nor of parotitis, as the tumors were not sensitive and the patient complained of no pain. Neither was it scrofulous, as scrofula could not be first developed at such an advanced age, nor would it yield so readily to treatment. Neither could he regard the disease as adenoma. He did not know what it was, and desired to be informed by some of the experienced gentlemen present. He would have called the disease scirrhous cancer, had it not been so generally distributed through the system. The contents of the tumor were not microscopically examined. He believed that the cancer-cell could be kept from forming by using arsenic in small doses and keeping the patient under its tonic and alterative action, avoiding its specific influence on the system, as well as gastric irritation, and continuing it for a long time,—one, two, or three years.

Dr. W. M. WELCH asked whether it was not possible for this tumor to have been an enlarged lymphatic gland, deeply seated, pressing forward internally.

Dr. ATLEE said the tumors were entirely distinct and somewhat nodulated.

He also stated that her sister, who is two or three years older, has goitre. For goitre he always uses the officinal tincture of iodine, ten drops three times a day, together with its external application. He has never found this to fail, but has had to continue the treatment one, two, or three years. With regard to arsenic, he wished to be distinctly understood; he does not believe that it will cure cancer. If, however, the cancerous growth be removed, which he believes in many cases to be a local disease, then it is that arsenic will show its remedial power. It will extinguish, he believes, the tendency to cancerous formation in that part or in any other. It will not produce absorption of cancerous material, but simply prevents its development. In several instances of cancer of the breast, after amputation, he has seen, under this treatment, the patients remaining well from five to twenty-five years. In one case of carcinoma uteri which had been pronounced incurable by Profs. Meigs and Gilbert, he had applied to the diseased surface every four days the following:

℞ Iodinii, ʒj;
Potass. iodidi, ʒj;
Glycerinæ, fʒij;

while internally arsenic was administered. This patient was treated several years ago, and is now well. She is over fifty years of age. Similar cases have been treated in their incipient stage with like results. He referred to another case, that of the wife of a physician of this city, in whom the cancerous growth involved the lower portion of the cervix and os, the vaginal fold surrounding the neck not being invaded. She was in a cachectic condition, with anæmia from repeated hemorrhages. The diseased cervix was removed several months ago, and the arsenical treatment adopted. The parts are now in a healthy condition, and the patient goes out daily. The arsenical treatment will be continued for a year or two. If there is no deposit upon the vaginal wall, he would recommend the removal of the os and cervix, even though there was a possibility of some diseased tissue remaining above the point amputated. The patient will recover from the operation, her life be prolonged, and her health much improved; but the disease will again return at some future time.

Dr. W. H. PANCOAST stated that he had witnessed the use of condurango in the case of a gentleman affected with an encephaloid cancer of his upper jaw.

He was called in too late to perform any operation for the removal of the diseased part, and could only recommend cleansing applications, together with a supporting and soothing treatment. The patient finally died of exhaustion. He had been taking, upon his own responsibility, without any benefit, a wineglassful of the fluid extract of condurango three times a day for more than six months.

GLEANINGS FROM OUR EXCHANGES.

ON THE FALL OF TEMPERATURE ACCOMPANYING GREAT WOUNDS BY FIRE-ARMS (By Paul Redard: abridged from a Translation by Arthur E. J. Barker, L.R.C.S.I., *Dublin Jour. of Med. Science*, Sept., 1872).—Though increase of the temperature of the body above the standard of health has attracted so much attention, the reverse phenomenon has not been sufficiently studied. Brown-Séquard, however, has shown that when in illness, or after wounds or poisoning, the temperature falls a certain number of degrees, there is danger of death solely as a consequence of the fall.

Long-continued exhausting discharges, want of sufficient nourishment, and hemorrhage, have been observed to produce this fall of temperature; but in a more marked manner has it been seen to follow extensive burns, and to occur in uræmia, in sudden ammonia blood-poisoning, in certain cases of septicæmia, sometimes in chronic peritonitis, in internal strangulations and wounds of the intestines (Demarquay), immediately after apoplectic seizures (Charcot), generally in lesions of the spinal cord and in compression of the brain, as in hydrocephalus. Hirtz gives as a pathognomonic sign of tuberculous meningitis a fall of temperature coming on at the prodromic period of the malady. A fall of temperature has also been observed after the termination of fever, pneumonia, etc. (the defervescence of Traube), and in various maladies which impede the circulatory and respiratory functions. The administration of digitalis and of tartar emetic has the same effect; alcohol as a veritable retarder of molecular interchange causes frequently a considerable fall of temperature: in the acute stage of drunkenness M. Redard has often observed a temperature of 36° (96° 8′ Fahrenheit).

Placed during the latter period of the French war,—the struggle between the regular army and the Federals,—in the ambulances "*de la Presse*" (in the service of his master, M. Demarquay), M. Redard had ample opportunities of noticing the effect of injuries by fire-arms in lowering the temperature. Every time a patient suffering from a grave wound from a fire-arm was observed by him, a lowering of the temperature of the body was found. In most of the cases the injuries had been inflicted by the bursting of shells, but in some they had been caused by cannon-balls shattering limbs,

and in the instances of the Federals the wounds had usually been received while they were in a state of intoxication. In such M. Redard found a wound produced a much greater fall of temperature than did one of equal extent in men of temperate habits, and in them amputations were most unsuccessful. He, therefore, quite endorses the dictum of M. Verneuil, that the prognosis of traumatic lesions, all other things being equal, presents an exceptional gravity among subjects addicted to drinking chronically. The author narrates his observations in fifty cases, and concludes his memoir with the following deductions:

"1. In great injuries by fire-arms, fall of temperature is a constantly observed fact.

"2. Several elements come into play in producing this fall. Among the principal we will mention,—nervous shock, the excitement of the combat, with consecutive stupor, hemorrhage, and, lastly, alcoholism.

"3. Every wounded man brought into an ambulance with a grave wound, which seems to necessitate an operation, and who shows a temperature below 35° 5′ (95.9° Fahr.), will die, and ought not, consequently, to be operated on.

"4. Every wounded man in whom a salutary reaction is not produced within four hours, and in whom the reaction is not a direct sequence of the fall of temperature, must be considered as very gravely injured.

"5. Burns give rise to an exceptionally great fall of temperature.

"6. The same is the case in wounds of the abdomen. The fall is the more marked the nearer the wound approaches the stomach.

"7. The diagnosis of penetrating wounds may become less difficult, on account of the characteristic thermometric phenomena to which they give rise.

"8. The state of intoxication in which the wounded are sometimes found favors singularly the observed fall of temperature.

"9. Wounds by shells, all other things being equal, produce a fall of temperature more accentuated than those by balls."

Case of Gastrotomy (By Francis Troup, M.D., Auchtermuchty: *Edin. Med. Jour.*, July, 1872).—In the year 1867, a man, æt. 50, asked my advice about loss of appetite, and gnawing pain at the epigastrium after taking food. This pain had troubled him more or less for a year, and now vomiting of bloody-looking fluid containing particles of food had set in. No treatment relieved these symptoms; the quantity of food rejected increased; blood was brought up in small nodules, like "boiled liver," as patient described it; and the act of swallowing was slowly performed, and excited a peculiar suffocative cough.

No tumor could be felt, but a bougie passed down the œsophagus encountered a constriction at lower third of sternum; when this was passed, a second, an inch or so lower; and then it found free entrance into the stomach.

During many months, nine at least, attempts were made to keep the passage open by bougies, the patient himself learning to introduce them; then, as increasing difficulty of passing them was experienced, elastic catheters of gradually-diminishing calibre were tried, and a certain amount of food introduced in this way. Nutrient enemata were also freely used. By-and-by the canal became completely closed, and there was constant hawking and coughing up of clear, tenacious, ropy mucus, and for a month before death patient was almost entirely supported by the enemata. During the first part of this month patient complained much of hunger; during the last fortnight, only of a thirst which was something dreadful to bear. He was anxious to live if possible, or, at all events, to have something done to relieve this tormenting thirst. I carefully explained to him that it was possible to open the stomach and to introduce nourishment; that so doing could not possibly cure him, and might prove speedily fatal; but if he survived, I believed his thirst would cease. He elected to have the operation done; and, assisted by the late Dr. David Lyell, of Newburgh, who gave chloroform, and his father, Dr. John Lyell, now of Glasgow, I proceeded to do it in the following manner: A straight incision, three inches long, commencing a little below the extremity of the xiphoid cartilage, was made to the left of the middle line of the abdomen, and midway between it and the costal cartilages. The thin abdominal walls and peritoneum were easily cut through, and, guided by the liver edge, search was made for the stomach,—a somewhat difficult matter, owing to the tenseness of the abdominal parietes, and the shrunken condition of the viscus itself. Pulled down and firmly held by forceps, an opening into it was made, its edges stitched to the parietal incision, and a tracheotomy-tube of moderate size, and with a large shield, secured in the wound. Milk, in gradually increasing doses, and stimulants, were now easily passed into the stomach, and the three remaining days of the man's life were spent in comparative comfort.

The operation scarcely raised the pulse, and the patient repeatedly expressed the opinion that it was worth while having undergone it, were it for no other thing than the quenching of his thirst. A post-mortem was with difficulty obtained. The cardiac end of the œsophagus was found converted into an epitheliomatous mass, through which, even with the assistance of daylight, no passage could be found. The stomach was very small, and had been struck about its middle. The opposed serous surfaces of stomach and parietal incision were in parts adherent, and the incision itself, in all its length, healing. The peritoneum had not inflamed,—a sufficiently remarkable fact, considering the free handling to which it had been subjected.

Colotomy for Intestinal Obstruction (*Medical Times and Gazette*, Aug. 24, 1872).—Mr. Steele commences by observing that many cases of intestinal obstruction terminate fatally without surgical interference, which, were timely operative measures adopted, would very probably end in recovery. He relates the case of a man, aged 52, who, usually enjoying good health, had lately suffered from diarrhœa. On June 2 he was unable to relieve his bowels; he took castor oil, but without effect. Mr Steele saw him early next day, and found tympanites, colicky pains, and fæcal accumulation in the rectum, with strong desire for defecation. Various aperients and enemata were unavailing; the rectum was cleared out, and galvanism was applied, but without result. Bad symptoms soon set in, succeeded by failing power of the heart. This was relieved by ether and laudanum. Liquid food was well taken and retained. On the sixth day, the patient, who had somewhat rallied, suddenly becoming worse, colotomy was performed. Flatus immediately escaped, and fæces some few hours afterwards. Localized peritonitis, inflammation of the skin, diarrhœa, gastric and intestinal irritation, etc., gave great anxiety for about four weeks. By this time the wound was well healed round the intestine, and the patient improved, and became restored to fair health, but remained weak. No passage per rectum had since occurred; but free discharges of thick mucus had proved troublesome. A swelling high up in the pelvis, which before operation seemed like fæces accumulated in the intestinal coils, afterwards descended, and proved to be a tumor, and the cause of obstruction. The patient was doing well. Mr. Steele concludes with observing that where the cause of obstruction is obscure, and appears to be fæcal

accumulation, all legitimate endeavors should be made to dislodge the same; that when the cause of obstruction is clearly mechanical, opiate treatment should be immediately commenced, and operative interference promptly adopted; that in such a case as the one narrated, surgical aid is the only means of saving life; that a person with a tumor compressing the lower bowel is in a much better condition with an artificial anus than with a constantly forced passage by the natural orifice; that the growth of the tumor will not be nearly so rapid as if it were subject to compression by the fæces and strained defecation; and that operation is most likely to be successful when the obstruction is caused by tumor, there not being sloughing to fear, as in internal hernia, or intussusception.

Effects of Quinine upon the Uterus.—Dr. F. K. Bailey, of Knoxville, Tenn. (*Medical and Surgical Reporter*, Nov. 9, 1872), gives the result of his experience in a malarious district:

"It was very common to find a pregnant woman suffering from uterine pain during a fit of ague, and abortion or premature labor often occurred in cases where timely antiperiodic treatment could not be carried out. In all such cases it was my practice, as well as that of others, to administer quinine promptly and freely. There was no other way to carry a patient over such a period of danger, except to suspend the periodical tendency.

"Again, the question is often asked, Is quinine admissible or ever indicated during labor, to regulate the expulsive efforts of the uterus? In answer to this I can say that in very many instances during labor occurring in the summer or autumnal months I have given quinine with the most happy effects. It was often the case that natural labor at term was ushered in by a chill, and the depressing effects of malaria would render the pains feeble and without expulsive power. At this juncture a full dose of quinine would equalize the circulation and render contractions more forcible."

MISCELLANY.

The *Clinic* of December 7 says that the Prussian government has issued a circular requesting that investigations may be made by the district medical officers on the duration of the incubation of cholera, and the means by which infection is conveyed,—whether by soiled linen, clothing, rags, textures of any kind, skins of animals, animal and vegetable articles of food, etc. If it be answered in the affirmative that any of these convey cholera, it is further asked how long the contagion retains its activity. Four cases of cholera were reported last week to have occurred in Vienna. One of the patients only, a man aged 27, admitted into the General Hospital, was found to have true cholera; the other three were cases of gastro-intestinal catarrh, connected in one instance with psoas abscess. It has been decided to provide a number of cholera-hospitals around Vienna. The *Allgemeine Wien. Med. Zeitung* states that from October 18 to November 3 there were 129 cases of cholera in Buda, with 29 deaths; during the same period one case occurred in the adjoining city of Pesth. Active measures are being carried out in both these places to meet the epidemic. The Hungarian Minister of the Interior, Herr Tóth, has occupied several days in personally visiting the hospitals, prisons, schools, barracks, hotels, and other public buildings in Pesth, in order especially to see that disinfection is carried out, and has sent to the public papers reports expressing, according to the state of the case, his satisfaction or dissatisfaction. The cholera patients have been removed from the hospital at Buda into private houses and barracks.

Mr. Darwin's New Work.—Mr. Darwin's forthcoming work on *Expression in Man and Animals* bids fair (says *Nature*) to be of a more popular character than any of his other publications. It will commence with a statement of the general principle of Expression: that serviceable actions become habitual in association with certain states of the mind, and are performed, whether or not of service, in each particular case. This will be illustrated in the case of expression of the various emotions in man and the lower animals. The means of expression in animals will then be discussed, and the special expressions of animals and man, such as the depression of the corners of the mouth in grief, frowning, the firm closure of the mouth to express determination, gestures of contempt, the dilatation of the pupils from terror, the causes of blushing, etc. In conclusion, the bearing of the subject will be spoken of on the specific unity of the races of man; the part will be discussed which the will and intention have played in the acquirement of various expressions; and the question of their acquisition by the progenitors of man will be referred to. Seven heliotype plates, reproduced from photographs, will illustrate the work.

The Cholera in Europe (*British Medical Journal*, Nov. 23).—During the second half of October, 4477 new cases of cholera occurred in various districts of Austrian Galicia. There were also 1003 cases remaining under treatment on October 15, making in all 5480. Of these, 2909 recovered, 1677 died, and 894 remained under treatment. No cases of cholera occurred in Vienna or the immediate neighborhood during the week ending November 14. In Buda, the total number of cases of cholera from October 18 to November 14 (inclusive) was 535; of these 235 recovered, 181 died, and 119 remained under treatment. In Pesth there had been, up to November 15, 228 cases of cholera, with 41 recovered and 74 deaths. For the purpose of treating the disease, the latter city has been divided into two districts, to which fifteen physicians are appointed. Their residences are denoted in the daytime by flags, and at night by lanterns, so that the public may know where to make application. Sixty men have been appointed to see that cleanliness is maintained; they are stationed at twenty different points, at each of which three men watch in rotation.

Longevity.—The entries on the registers of deaths in England and Wales in the year 1870 represent that eighteen men and sixty-three women who died in that year had attained or passed the age of 100 years.

According to the registers, six men and twenty-two women were 100 years old; one man and fourteen women were 101; three men and eleven women were 102; two men and six women were 103; five men and seven women were 104; two women were 105; one woman, who died in Huddersfield district, was 107; and one man, who died in the district of Stone, Staffordshire, was 108 years old when he died. Of these centenarians, ten died in the metropolis, six in Somersetshire, five in Yorkshire, and four in each of the following counties, —viz., Cambridge, Durham, Glamorgan, Monmouth, Norfolk, and Pembroke.

New York Medico-Legal Society.—This Society held its fifth anniversary meeting, October 10, 1872, and the following officers were elected for the ensuing year: *President*, Clark Bell, Esq.; *First Vice-President*, John C. Peters, M.D.; *Second Vice-President*, Arthur J. Delaney, Esq.; *Recording Secretary*, James Ross, M.D.; *Assistant Recording Secretary*, William B. Wallace, Esq.; *Corresponding Secretary*, Jean F. Chauveau, M.D.; *Chemist*, Augustus Wohlfarth, M.D.; *Treasurer*, Thomas S. Bahan, M.D.; *Librarian*, William Shrady, Esq.; *Pathologist and Curator*, Philip E. Donlin, M.D.; *Trustees*, O. C. Warfield, Esq., T. C. Finnell, M.D., J. F. Miller, Esq., H. L. Richardson, M.D., Stephen Rogers, M.D.

That clerical and lay functions were once conjoined, the following old-time advertisement will sufficiently show: "Wanted, for a family who have had bad health, a sober, steady person in the capacity of doctor, surgeon, apothecary, and man-midwife. He must occasionally act as butler, and dress hair and wigs. He will be required sometimes to read prayers, and to preach a sermon every Sunday. A good salary will be given."

The days of charms and amulets are not yet past. Dr. V. Holsteck announces (*Bordeaux Médicale*) that he is invariably able to suspend the secretion of milk in the breast by suspending in front of the sternum a tube of goose-quill, sealed at both ends, but filled with metallic mercury. The secretion of milk is arrested in twenty-four hours; two hours afterwards the breasts resume their normal state.

Medical College of Ohio, Cincinnati.—The College museum has just received a valuable acquisition in the shape of the artistically prepared skeleton of "Old Man Dead," the College resurrectionist for the past forty years. The skeleton is seated on a tombstone, with spade in hand and pipe in mouth, in perfect self-complacency, apparently, over a recent successful "job."

The Elizabeth (N.J.) *Journal* says that a certain undertaker there sent to one of the prominent physicians of that place a lot of death-certificates with his card on them, as a complimentary present to the doctor. What the doctor sent to the undertaker as an acknowledgment of the compliment we have not heard.

London Items.—*The British Medical Journal* says, "We believe that Sir William Jenner will be nominated by the Council of the Pathological Society as President for the ensuing year; and Mr. Prescott Hewett will be nominated as the next President of the Clinical Society."

After nineteen years of devoted service, Dr. Sharpey is about to give place as Secretary of the Royal Society to Professor Huxley.

A Convalescent Home, which has been erected by the Pease family at a cost of upwards of £12,000, has been opened at Saltburn-by-the-Sea.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending Dec. 21, 1872, were 332; 192 adults, and 142 minors. 9 were of bodies brought from the country; making the mortality of the city 323. Among the causes of death were:

Consumption of the Lungs	37
Other Diseases of the Respiratory Organs	64
Diseases of the Circulatory Apparatus	19
Diseases of the Brain and Nervous System	60
Diseases of the Digestive Apparatus	11
Zymotic Diseases	17
Typhoid Fever	7
Casualties	11
Cancer	5
Suicide	1
Debility (including "Inanition" and "Marasmus")	32
Still-born	21
Old Age	18

(The interments reported for the week ending Dec. 23, 1871, were 539.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

	Thermometer. Max.	Thermometer. Min.	Barometer. (2 P.M.)
Dec. 15	46.0°	34.0°	30.17 in.
" 16	38.0	31.0	30.18 in. (Rain.)
" 17	34.5	30.0	30.42 in.
" 18	34.5	30.0	30.10 (Snow and Rain.)
" 19	37.5	28.0	30.59 in.
" 20	40.0	35.0	29.97 in. (Snow.)
" 21	31.5	25.0	30.31 in.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U. S. ARMY, FROM DECEMBER 10, 1872, TO DECEMBER 16, 1872, INCLUSIVE.

Wirtz, H. R., Surgeon.—To accompany Battery "B," 2d Artillery, on 4th inst., to its station in the Department of the East, as Medical Officer, and on completion of this duty return to San Francisco, Cal. S. O. 223, Military Division of the Pacific, Dec. 2, 1872.

Hubbard, V. B., Assistant-Surgeon.—Telegraphic Order of 26th ult., from these Headquarters, directing him to report in person at these Headquarters for assignment to duty, confirmed. S. O. 191, Department of the Gulf, Dec. 8, 1872.

Delany, Alfred, Assistant-Surgeon.—Granted leave of absence for four months, with permission to apply for an extension of two months to go beyond sea. S. O. 323, War Department, A. G. O., December 11, 1872.

Munn, C. E., Assistant-Surgeon.—To report in person to the Commanding General, Department of the East, for assignment to duty. S. O. 319, War Department, A. G. O., Dec. 7, 1872.

Reynolds, Frank, Assistant-Surgeon.—Granted leave of absence for six months, on Surgeon's Certificate of Disability, with permission to go beyond sea. S. O. 323, c. s., War Department.

SATURDAY, JANUARY 4, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON TWO CASES OF RENAL DISEASE.

BY DR. JAMES H. HUTCHINSON.

Delivered November 13, 1872.

Reported by DR. GEORGE S. GERHARD.

DR. HUTCHINSON began his lecture by reading the following notes:

Margaret K., aged 38, a native of Ireland, married, and mother of seven children, was admitted Nov. 5, 1872. She is free from any known hereditary taint, and until her present troubles began had always enjoyed good health. About five months before her admission she was taken suddenly with pain in the right lumbar region. It was intense at first, and caused her a great deal of suffering; it, however, gradually wore away, and in about a week disappeared entirely. About a fortnight afterwards the part previously the seat of pain became tender to the touch, and this led to the discovery, on the part of the patient, of the "lump" which now exists. She has never had rigors or sweats. She has been subject now and then to a "kind of stoppage" of urine, and this secretion has occasionally had a milky appearance. About three weeks before admission her feet and legs began to swell. The patient has never had menstrual difficulties; she is habitually costive. She is unable to say whether the tumor has increased in size since its discovery.

On admission it is noted that the patient is anæmic and sallow; her tongue is pale, and her bowels are sluggish. The abdomen is very prominent, and begins to rise abruptly about one inch above the umbilicus; its anterior wall is thin, and the peristaltic wave of the intestines is distinctly visible; the prominent part of the abdomen is clear on percussion.

In the right lumbar region a resistant body having obscure outlines can be felt; it is behind the intestines and is not connected with the liver. The posterior part of the right lumbar region is dull on percussion, and notably prominent. Neither the patient's movements nor the movements of respiration affect the position of the tumor.

The tumor, or as much of it as can be felt, has an even surface, and is not tender to the touch.

The area of hepatic dulness is not increased. The feet and legs of the patient are œdematous, and pit readily on pressure.

The pulse is feeble. Over the body of the heart a soft hæmic murmur is heard.

The patient states that she loses a considerable quantity of blood from hemorrhoids.

The urine is light-colored: its specific gravity is 1014, and it contains a large amount of albumen.

On the 12th the following note was made:

The patient has had a severe diarrhœa for several days past, but the size of the tumor remains the same.

She is to use suppositories of tannin and opium.

The temperatures which have been taken at various times since the patient's admission are always above the normal. These are the notes of the case up to the present time.

The patient, you see, is excessively sallow and anæmic, and you will notice when I draw down the lips how pale the mucous membrane is. I call particular attention to this point, because anæmia produces paleness of the mucous membranes sooner than of the skin.

As the notes have told you, there is a hæmic murmur heard at the base of the heart. These murmurs nearly always have their point of greatest intensity at the base of the heart, and at the second costal cartilage near its junction with the sternum.

There is a point worth knowing in connection with blood-murmurs; and it is that they are always heard with greater distinctness when the patient is in the recumbent posture.

The lower extremities of the patient, you notice, are œdematous and pit on pressure. There is no thoracic disease.

Now, in regard to the abdomen. And, first, let me give you some general directions for its exploration. The means we have for examining the chest are equally applicable to the abdomen, viz., inspection, palpation, percussion, auscultation, and mensuration. It would seem only natural that a perfectly flaccid wall like that of the abdomen should offer but slight resistance to the exploration of organs contained within; but in reality it is more difficult to detect abdominal disease than thoracic.

The patient, as the one before you, should be placed on her back, with her head slightly raised, and her thighs flexed upon the abdomen in order to relax the muscles as much as possible. You should take care that your hand is warm, and then, with the palm flattened, make uniform and gentle pressure.

The abdomen of the patient before you, as you have learned from the notes, rises abruptly about one inch above the umbilicus, and has its walls so attenuated that you can see the peristaltic movements of the intestines. It is everywhere resonant on percussion, and when pressure is made on the right side an obscurely defined resistant tumor can be felt occupying the back part of the lumbar region. It is, as the patient tells us, never painful, and is not tender on pressure. Neither the respiratory movements nor the movements of the patient herself affect its position.

What is the nature of this tumor, and with what organ is it connected?

The first organ suggested is the liver; but this occupies its normal position and does not extend below the costal border. Nor is there a possibility of its being connected with the ovary or uterus, because they would, when enlarged, occupy a position more anterior; and, besides, there is no history of either ovarian or uterine disease.

That the tumor is not due to impacted fæces is proved by the fact that the diarrhœa with which the patient has been suffering for several days past has not in the least degree affected its size.

Peri-nephritic abscess would give rise to swelling in the region of the kidney, but at the same time it would in all probability be associated with pain and tenderness on pressure.

We come, then, by a process of exclusion, to the kidney itself, which, you know, in its normal state

occupies a position far back in the lumbar region. It has been said in the notes that the patient has been the subject of urinary difficulties. The urine has had a milky appearance, and there has been at times what the patient terms a kind of stoppage of the secretion; but the latter was probably a reflex result.

I will now show you the patient's urine, and point out to you the ordinary tests for determining the presence or absence of albumen.

There are, as you know, two tests for the detection of albumen in the urine; but neither should be relied upon to the exclusion of the other. One consists in the application of heat to the urine; the other in the addition of nitric acid. It must be remembered that the phosphates are also thrown down by heat, and that uric acid is precipitated by nitric acid, but the urates are dissolved by heat, and the phosphates by nitric acid. It must also be remembered that albumen is soluble in urine to which too little nitric acid has been added, and that it is soluble in urine containing an excess of the acid. I will now pour a small quantity of the patient's urine into a test-tube, and determine its reaction, because albumen will not coagulate in an alkaline fluid. The litmus paper, you see, becomes red; the urine is therefore acid. It is best to apply heat, as I am now doing, to the top of the urine in the tube; the liquid below remains unchanged, and the precipitate can be readily detected. I shall add a few drops of nitric acid to the urine containing the precipitate you now see thrown down. The acid has no effect upon it, which shows that it is not composed of the phosphates.

I shall now pour a drachm of urine in a test-tube held in a slanting position, and add to it about fifteen drops of nitric acid, which, being of a greater specific gravity than the urine, will fall to the bottom. You see, at the junction of the two liquids, a well-marked, sharply-defined white ring, composed of coagulated albumen.

It struck me, when looking at the urine yesterday, that it contained pus. Since then the existence of this element has been determined by microscopical and chemical examination. Urine containing pus will become tenacious when agitated with an equal bulk of liquor potassæ in a test-tube. I will now add liquor potassæ to the urine in this test-tube. The liquid has become, you see, after shaking the tube a few times, very tenacious and ropy.

Now in regard to the nature of the tumor. Although the impression given to the hand is that of solidity, I do not, on account of the absence of pain and nodulation, believe in the existence of cancer. I am inclined to believe that the enlargement is due to purulent collection in the kidney, and that the commencement of the disease was an inflammation of the pelvis of the kidney, or pyelitis, originating, probably, in obstruction of the ureter.

Although the patient may live for some time, I think there is no question about a fatal termination. Her treatment consists mainly in the administration of tonics. She is taking iron, and gets the best food that the hospital affords.

The next case that I shall bring before you illustrates another form of renal disease, but one which, generally speaking, does not give rise to dropsy.

I shall first read you the notes of the case:

Mary K., aged 58, a widow, and native of Ireland, of intemperate habits, was admitted July 31, 1872. She has had five children, of whom all but one died in infancy. The one now living enjoys good health; is about 25 years of age. She states that her own health was always good until six years ago, when she was suddenly taken, while carrying a heavy weight, with spitting of blood. The amount of blood lost was sufficient to cause marked general prostration. Neither pulmonary nor abdominal symptoms followed, but she was under treatment five months, in one of the hospitals in this city, for what she terms "weakness."

She subsequently enjoyed good health until February, 1872, when she contracted pneumonia of the right lung, for which she was admitted into this hospital. She made a slow recovery, and for a long time there was harsh respiration at the upper part of the right lung, with some dulness on percussion.

It was noticed that the patient passed her urine frequently, but there is no record of its having contained albumen.

She was discharged from the ward June 4.

On the 31st of July she was readmitted. She stated that she suffered greatly from weakness, and that she had been obliged to abstain from work ever since her discharge in June.

On November 1, when the ward was handed over to Dr. Hutchinson, the following note of the patient's condition was taken:

The patient is very weak, and remains constantly in bed; her appetite is poor, and her stomach is irritable; the abdomen is full, but there is no evidence of effusion. The area of hepatic dulness is normal. She has a troublesome cough, accompanied by a muco-purulent expectoration. There is dulness on percussion under the right clavicle and in the right superior scapular region. In both of these regions moist, crackling sounds are heard on full inspiration.

She passes her urine frequently, and is obliged to get up several times at night.

The urine has a specific gravity of 1012; it contains a decided amount of albumen, and granular casts are seen under the microscope.

You see there is no evidence whatever of œdema of the lower extremities of this patient, and yet we have positive proof of renal disease, in the presence of albumen and casts in the urine. When I apply heat to this test-tube containing some of the patient's urine, a decided cloudiness is produced, which does not disappear when nitric acid is added.

As you have learned from the notes, the patient is troubled with frequency of micturition, and is obliged to get up several times at night. We have not been able to measure the quantity of urine voided in twenty-four hours, because it is occasionally passed involuntarily. This is important, because in certain diseases of the kidneys—acute nephritis, for instance—the quantity of urine is diminished.

In the form with which I think we have to do in the case before us, viz., the cirrhotic or contracted kidney, the quantity of urine is generally increased, but its solid elements diminished. In albuminoid degeneration the quantity of urine is also increased; but the history presented by the case before us, and

the kind of casts found, point, I think, to cirrhosis rather than to albuminoid degeneration.

As I have but a few minutes before the close of the hour, I shall occupy them in telling you of a case of sudden death from renal disease, that lately came under my observation.

One of the domestics of this institution went to bed on the night of the 7th, Thursday, feeling well, and having at no time presented symptoms of renal disease. Not making her appearance on Friday morning, an examination of her room was made, and the patient was found lying upon her bed in a condition of semi-coma.

I saw her on Saturday morning when she was sent to the ward. She was then completely comatose. She died on the following day.

Some of her urine was drawn off by the catheter, and was found to contain albumen and fatty casts. No autopsy was allowed; but I have no doubt that the patient had fatty kidneys, and that the coma depended upon uræmic poisoning.

[NOTE.—The patient, Margaret K., died on the 19th of December. Previous to her death, enlargement of the left kidney was also detected by palpation, and the probable existence of amyloid degeneration diagnosticated. The following are the notes taken at the post-mortem examination:

The body is much emaciated; the skin is generally sallow; the feet and legs are œdematous. The lungs are very pale, but in other respects are quite healthy.

The heart presents a healthy appearance. The liver is slightly increased in size; its tissue is firm, and presents an appearance of amyloid degeneration in an early stage. On microscopical examination the hepatic cells are found to be fatty; the spleen also is somewhat increased in size. The right kidney is much enlarged, and is tightly adherent to surrounding parts; its surface is not nodulated, and when pressure is made pus is squeezed from the ureter; it is resistant, and does not present any fluctuating point. On cutting open the organ, the pelvis is found distended with creamy pus.

Three calculi, the largest being of an irregular quadrilateral shape and measuring about an inch in its largest diameter, are found occupying the distended calices.

The proper substance of the kidney is entirely replaced by dense white fibrous tissue.

The ureter, as it approaches the hilus, is bound to the inner border of the kidney by bands of inflammatory origin; its canal is pervious.

The left kidney, very much enlarged, presents the macroscopical and microscopical appearances of amyloid degeneration.]

APHASIA FOLLOWING PARACENTESIS ABDOMINIS (*Le Mouvement Médicale;* from the *Union Médicale*, Sept. 24).—About six months ago, a woman aged 45 became almost suddenly aphasic in consequence of tapping for ascites dependent upon hepatic disease, performed by M. A. Guérin at the Hôtel-Dieu. After the liquid was drawn off, care was taken to make pressure on the belly at once, by means of a compress and bandage. Notwithstanding, the patient was seized, immediately after the operation, with complete aphasia, and with symptoms of hemiplegia on the right side. Her intelligence is now perfect, and speech has been restored to some extent; almost every sign of paralysis has disappeared from the lower extremity; the upper limb, on the contrary, is motionless, and the seat of a very marked contracture. The improvement already gained inspires the hope that the lesion is not wholly incurable.

ORIGINAL COMMUNICATIONS.

THE HORSE EPIDEMIC OF OCTOBER AND NOVEMBER, 1872.

BY ALBERT FRICKE, M.D.

With a statement of microscopical appearances of specimens, by Prof. JOSEPH LEIDY.

Read before the Biological and Microscopical Section of the Academy of Natural Sciences, Dec. 9, 1872.

UP to the present time only a few and mere casual observations have been published in our medical periodicals on the scourge which has now over five weeks decimated the horses of this city. From the first outbreak of the epidemic up to the present time I have carefully examined many cases during illness, and after death Drs. William Hunt, James J. Levick, and J. Koerper have kindly seen some of the cases with me. Prof. Joseph Leidy has been present at some of the post-mortems, and has, as well as myself, made microscopic examinations on the nasal discharges, blood, and such lesions as were found in the dead bodies.

One remarkable feature of this epidemic is the great rapidity with which it swept over the continent, appearing first in the far East, and in less than eight weeks reaching the sea-borders of Louisiana and Georgia; and it is still travelling West and South.

This rapid spread, and the first symptoms after the outbreak of the disorder, strongly resemble the well-known influenzas of the human family; in the progress of the disease this similarity seems to disappear. The coryza-influenzas of the human family have never shown great fatality, except by complications. In this horse epidemic the mortality is beyond precedent, and no one who has watched cases of this disease can deny the presence of a blood-poison far exceeding in virulence that which induces influenza.

The first symptom of this disease is a dry, troublesome cough, which, in grave cases, is ushered in with a chill and cold extremities, great depression of strength, a weak and somewhat accelerated pulse, and eyes slightly injected. Soon after, a light, colorless discharge from the nostrils appears; the cough continues without much increasing in violence, but the discharge from the nostrils becomes so copious that it runs like a stream from the nares whenever the animal lowers its head. This may continue for five or six days, and, if the case is a light one, and the animal is allowed proper rest and food, may pass into health again without any untoward symptoms, but not always. (See Case III.)

But if the case is a grave one, or the horse is now exposed to work and the inclemencies of the weather, the discharge from the nostrils increases, changes in color, becoming greenish-yellow, ropy, bloody, and fetid; the cough remains the same, or rather diminishes. The animal now generally refuses food, the respiration becomes labored, and, although the physical examination of the lungs shows

a healthy condition of those organs, the breathing assumes a truly spasmodic character, resembling closely the abdominal respiration of children in the last stage of croup; and the animal finally dies from exhaustion, refusing to lie down almost to the last moments of life. How different from the influenzas of our race! These have been the most striking features of all the cases coming under my observation, and which died in the first and second week of the disease,—twelve cases in all.

After the second, say during the middle or end of the third week, if the case progresses unfavorably, œdematous swellings make their appearance, sometimes to an enormous extent, the hair of the mane and tail falls out, the lining membrane of the nostrils becomes deep purple, the animals are very feeble, and but little hope remains for their recovery. How different from influenza! The mortality in this epidemic must have been very great; according to the estimate of Veterinary Surgeons M. W. Birch and James Marshall, both intelligent and reliable men, from one hundred and fifty to two hundred horses have died daily in this city, from the end of the first week—November 2—until now, November 27.

From my notes I will here relate some cases, and give the result of the post-mortem examination of each, and, later, add the communication of Prof. Leidy on the microscopical appearances of specimens.

Case I.—Horse of Mr. Miller; one of the first horses attacked in town. This horse showed at first no very grave symptoms; light cough, some discharge, fed well, and seemed in good spirits. It was driven out the second day; symptoms all aggravated; left off feeding; discharge from nostrils greenish, fetid, and bloody; difficulty in breathing; auscultation gave no indication of disease of lungs. Respiration finally became spasmodic and abdominal; died on the seventh day. Post-mortem made by Prof. Leidy and myself. The lining membrane of glottis, larynx, and trachea with the capillaries strongly injected and of a mahogany-red color. The whole surface seemed to be covered with a dark-green, bronze-colored paint. Lungs healthy.

Case II.—Mr. Edward Free's horse; sick eleven days; discharge from nostrils very copious, but not so fetid as in Case I. Breathing became daily more labored. Fearing that my auscultation in the previous case might have been inaccurate, I requested Dr. J. J. Levick, and afterwards Dr. William Hunt, to examine the animal. We could not detect anything abnormal. The horse died with the same truly distressing respiration as the first one. The autopsy gave precisely the same result. Deep bronze-colored mucous membrane, and injected capillaries of larynx and trachea; lungs healthy.

Case III.—Mr. Ramsey's pony; duration of sickness three weeks. This horse had hardly any cough or discharge from the nostrils, and fed well; was considered in the stable almost in normal health; was never exposed during its illness; suddenly, towards the third week its breathing became laborious, fetid, discharge from nostrils made its appearance, and it died apparently from exhaustion. Post-mortem made by Veterinary Surgeon Marshall and myself. Same result as in the former case.

Prof. J. Leidy and myself examined, at the skinner's yard, two or three horses which had died of this distemper. We found the same appearances in each. Glottis, larynx, and trachea with the capillaries injected and the mucous membrane of a dark-red and greenish-bronze color. Lungs and all the other viscera in a healthy condition.

I will here remark that not all cases show the green, bronze-colored condition of the mucous membrane, but always highly-injected capillaries, and, if the greenish color is absent, a dark mahogany-red one.

Case IV.—Mr. Saller's mare; duration of sickness somewhat over three weeks. This mare showed all the symptoms of nasal discharge, copious and discolored, but not bloody to any great extent. Respiration very laborious, and abdominal. Auscultation gave no abnormal result. Dr. William Hunt examined this mare several times with me, in the last days of her life. Auscultation showed strong mucous râles. Autopsy made by myself and Veterinary Surgeon Marshall. Same green, bronze-colored appearance of larynx and trachea, reaching deep into the larger bronchi. The whole lining membrane of trachea split at different parts in a longitudinal direction as soon as the trachea was opened. This was the first case where there was a fair appearance of exudation, or false membrane.

Case V.—Autopsy of horse which died at the Second and Third Streets Passenger Railway Company's stables; myself and Dr. W. Keller were present, by invitation of Veterinary Surgeon M. W. Birch. Same result as in the other cases. Took home part of larynx with glottis, and a piece of vomer with Schneiderian membrane; on all these parts were ulcerations. Duration of sickness six days.

Enough cases have now been related to show that this is a blood-disease, exhibiting well-marked anatomical characters in the mucous membrane of the nares, glottis, larynx, and trachea, either by stasis in the capillaries and exudation, or actually by the presence of that pathological product which we call false membrane.

Prof. J. Leidy's statement of microscopical appearance of specimens.

No. I.—Nasal discharge from Mr. Miller's horse; specimen thick, tenacious, and yellow. Beneath microscope (Hartnack No. 11 immersion) exhibited ordinary mucus- or pus-corpuscles, with usually a single and well-defined nucleus; also, multitudes of minute granules in short chains, straight and curved, constituting a form of vibrio not very active in movement.

A second specimen from the same horse, received a day or two later, showed the same character, but the vibrios appeared more broken up into their elementary particles.

Post-mortem examination of parts of the same horse at a later date.—The nasal, pharyngeal, laryngeal, and tracheal mucous membrane in a highly hyperæmic condition, dark mahogany-red, with a thin superficial stratum of a greenish-yellow hue, and numerous deeper minute spots, from the size of a pin-head to a line in diameter, of a still deeper red hue. The greenish layer was found to be the epithelium, and was composed of the ordinary ciliated columnar cells, with multitudes of other cells of various shapes, and without cilia, but with the same constitution.

No. II.—Nasal discharge from Mr. Free's horse;

same as in the preceding specimen, but with fewer vibrios in chains. Some dusky streaks exhibited spores of uredo, simple globular spores, mucor-threads, pollen-grains, and fragments of chaff.

No. III.—Nasal discharge from Mr. Bean's horse; same as in the preceding specimen. Dusky streaks also contained uredo-spores, round spores, germinating spores, and fragments of chaff.

No. IV.—Post-mortem examination of a horse at the skinner's. Mucous membrane in same condition as in the former case. Microscopic examination with the same result.

No. V.—Blood of a horse submitted by Dr. Fricke. Blood-corpuscles appeared normal. White corpuscles exceedingly few,—sometimes not one in three microscopic fields. This blood was remarkable for a great number of minute granules mingled with the blood-corpuscles.

No. VI.—Blood from another horse, submitted by Dr. Fricke, apparently normal. The blood-corpuscles arranged themselves rapidly in rolls in a much more striking manner than in the preceding specimen. White corpuscles few. Granules none.

No. VII.—Portion of the pharynx, larynx, and trachea of a horse submitted by Dr. Fricke. Mucous membrane of the same character as in the preceding cases. A patch of false membrane in the pharynx, in the vicinity of the laryngeal orifice, appeared like a superficial ulcer. The patch adhered tightly, and was of a gray color. On detaching it, it was found to replace the epithelium. The place beneath was bright red. The membrane consisted of large nucleated round granular cells, closely adherent one to another.

No. VIII.—Portion of nasal partition, pharynx, larynx, and trachea of a horse, examined at Dr. Fricke's residence. The mucous membrane of the parts as in previous cases, but upon that of the nasal partition, the pharynx, and larynx, there were large elevated gray patches of ulcers; they had well-defined borders, and the patches adhered tightly to the surface beneath. On removing the patches they were found to have rested in shallow, bright-red excavations of highly vascular connective tissue. The patches consisted mainly of large rounded granular protoplasmic masses or cells, more or less distinctly nucleated. Deeper parts contained shreds of a striated tissue, with multitudes of narrow spindle-shaped cells, apparently connective-tissue corpuscles.

So far Prof. J. Leidy.

Considering now the symptoms of the stated cases during illness and before death, the results of the post-mortem examinations, and those of the microscopic investigations of the lesions found in the nares, pharynx, glottis, larynx, and trachea,—and a sufficient number of cases have been examined,—the presence of false membrane in the named parts, all these seem to point to the conclusion that this disease is allied to the epidemics of diphtheria of the human family. The acute anæmia so generally observed is another proof of the diphtheroid character of this epidemic. The disease broke out in the far East during the autumn, when the cold, damp atmosphere and the prevalence of catarrhs at this season of the year furnished sufficient material for the development of diphtheritis.

This horse epidemic of October and November, 1872, by the rapidity of its spread, the universality of its attack,—few horses escaping,—and by its great fatality,—out of thirty thousand horses owned in Philadelphia, according to the official reports over twenty-two hundred and fifty died in less than three weeks,—marks an epoch in the history of epidemics.

A BRIEF REVIEW OF THE REPORTS ON SCARLET FEVER AND DIPHTHERIA PUBLISHED IN THE "TRANSACTIONS" OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA FOR 1871.

BY HIRAM CORSON, M.D.,
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FOR more than twenty years I have in numerous essays pressed upon the profession the importance of the use of ice, internally and externally, in the treatment of scarlet fever and diphtheria; the value of pouring cold water on the head when in grave cases the brain is affected, and of sponging the surface of the body with cool or cold water to allay excessive heat of the system. My experience teaches me that the gravest cases can be thus controlled. From various parts of the country comes the most cheering testimony in favor of the practice from physicians who have tried this cooling treatment, but yet the great majority of practitioners adhere to the old, empirical, and fatal routine practice. In order to present the subject to your readers in its proper light, I will give a brief review of the modes of treatment made use of in the various counties of our State, that they may see what claims they have for our confidence: nor need I render any apology for so doing, in view of the great prevalence and fatality of those diseases, as set forth in those very reports.

In the Mortuary Report of the City of Pittsburg, the Health Physician, J. Guy McCandless, in Class 1, Zymotic Diseases, gives the number of deaths from each disease; from which it appears that the deaths from scarlet fever and diphtheria were 225, only 45 less than from all other zymotic diseases together, excepting only cholera infantum, namely: smallpox, measles, croup, erysipelas, pyæmia, uræmia, typhoid dysentery, congestive fever, diarrhœa, hooping-cough, typhoid fever, cholera morbus, cholera sporadica, cholerine, gangrene, syphilis, inanition, and intemperance. Nor does this report stand alone. Philadelphia in her Mortuary Table sums up the deaths from zymotic diseases to a total of 2480, of which 956 were from scarlet fever, 172 from diphtheria, and 316 from croup (a kindred disease),—1444 deaths from those three diseases alone,—being 408 more deaths than from all other zymotic diseases together, namely: smallpox, measles, hooping-cough, cholera, syphilis, hydrophobia, typhoid fever, typhus fever, spotted fever, relapsing fever, puerperal fever, malarial fever, and erysipelas. Although the mortality of scarlet fever has been a

subject of deep and painful thought to me for many years, I had not regarded it in the light in which those reports present it. As a slayer of the human family in our State, it yields the championship only to consumption, a disease confined to no locality, which has for its field of operations every foot of our Commonwealth, and "has all seasons for its own." Let us look for a moment at those two diseases which, under the name of blood diseases, have caused physicians to seek after some remedy which, by a chemical or by an antiseptic influence, could neutralize the morbid matter which they believed was acting deleteriously on the blood, and through it poisoning the whole system,—a belief which blinded them to the fact that a fearful local inflammation was rapidly obstructing the principal avenue to life. In both of those affections Death comes to the patient with his grip upon the windpipe,—though he may sometimes, at the onset, stun him for a brief period by a blow on the brain.

And now let us see how the treatment in common use is adapted to ward off the King of Terrors. He uses no strategy, but comes boldly to the work. And what do we? While he is stunning the brain, we are giving chlorate of potash and brandy to produce some effect on the blood; while he clutches the throat, we apply fat meat to the neck and grease the body with lard, but raise not a finger to loosen his grasp. But I must not anticipate; let every county speak for itself. Dr. Asdale, of Allegheny county, had "twenty-two mild cases, requiring but little medication, and nine malignant ones, of whom five died." Omitting what he says of the mild cases, we will consider the grave ones:

"They are characterized by a sudden and violent accession of fever, generally preceded by vomiting; all marked by convulsions, and it was invariable in the fatal ones. In one case convulsions ushered in the disease, abating on the second day, death occurring on the fourteenth. In another, convulsions and death on the first. In the third, death in convulsions on the second. In the fourth, death in convulsions on the third day. In the fifth case, convulsions occurred on the fourth day, and the patient died on the seventh. In all, the eruption was well marked, being florid on all parts of the body, except in one, distinct only upon the face, and in that death occurred on the first day. In all, the pulse was from 120 to 160; temperature very exalted, one case on the second day being from 104° to 105°; in another from 105° to 106°. The former recovered after a protracted convalescence, the latter died. In numerous cases *the throat was at an early period most seriously involved;* in several, *pain in the throat was the first symptom* of the approach of the disease. In such cases the tonsils would become much enlarged, followed by extensive sloughing, extending low in the pharynx, in one case involving the larynx also, the patient having a rasping croupy cough, and difficulty of respiration. In one case, sloughing of the cervical glands was so great as to lay bare the muscles of the side of the neck."

While I have not quoted every word of Dr. Asdale's description of his nine malignant cases, I have omitted nothing of importance. Five of them defied his treatment, and some of the other four recovered only after a "protracted convalescence." My only object in this essay is to turn the attention of the profession to the utter inefficiency of the treatment almost universally resorted to in severe cases of scarlet fever. The above cases so well described by Dr. Asdale are very strong specimens of what are called grave cases; and now let us see what the treatment was:

"In all the severe cases in the acute stage, frequent anointing the body with lard was practised, to the great relief and often decided benefit of the patient. In several cases sponging with spirits diluted with warm water was used with marked reduction of temperature, and, as in the former case, with a soothing and agreeable influence. Cold affusion not practised. Cold drinks *allowed if desired*,—generous diet. Of therapeutic agents the bromide of potassium will claim the first place, very marked benefit being apparent from its use in five to seven or ten grain doses; in all those cases in which nervous phenomena were predominant, combined with tincture of aconite in *tolerably large doses*, and occasionally the addition of carbonate of ammonia, seemed favorably to combat the ataxic symptoms. Further in the cases, carbolic acid, quinine, and stimulants gave results highly gratifying."

Such was the treatment of nine grave cases, five of which died; and yet the means used are spoken of as producing "great relief and decided benefit to the patient," "combating favorably the ataxic symptoms," and producing "results highly gratifying."

As I read Dr. Asdale's treatment, I seem to be with him in the sick-room. It is his first visit, and the patient, a little girl of five years, is in the condition of which he speaks. Yesterday she was attacked by pain in the throat; to-day the throat is seriously involved. Pulse 120 to 160; heat of body 104° to 105°; skin florid; convulsions threatened.

There is no mistaking the disease. We have before us a grave case of scarlet fever. The family are affrighted; and as Dr. Asdale looks at the swelled tonsils, feels the rapid pulse, the burning skin and twitching muscles, and hears the mutterings of delirium, I see in his face despair take the place of hope. He remembers how often in times past, *in grave cases*, he has seen the utter worthlessness of the remedies recommended by authors and teachers. It is not a week since some of his patients in another street were carried off. With me, too, memory is busy. Scenes and incidents of forty years ago are before me; loved ones confided to my care are dying from scarlet fever; mothers are mourning for their children, and will not be comforted; while I, agonized and bewildered by my want of success, though using the means recommended by high authority, try to comfort myself by the assurance of teachers and authors that there "are cases in which no treatment will avail,"—a doctrine as erroneous as their treatment. But Dr. Asdale will do what he can for the case before him, and once more (despite all his former experience) he directs the mother to grease the body with lard (and speaks approvingly of the fat bacon which is already around the throat), and leaves some bromide of potassium, seven grains to be given at a dose, with "tolerably large doses of aconite."

And now we are about to leave, to visit other patients, and will call here again to-morrow to see

the effect of our remedies. Dear child of a loving mother, are you to be left now for twenty-four hours with no defence against the terrible disease which is swelling your tonsils, bloating up your throat, inflaming your nose and sending a burning flame into your windpipe; which is making your heart drive the blood through the arteries like a steam-engine; which is burning your skin and setting your brain on fire, and is just ready to throw every muscle into spasms,—with no defence, I say, against all this but a little lard, a few grains of bromide of potassium, and a few drops of tincture of aconite?

In behalf of the poor child, I ask, cannot we do something to relieve the swelled and burning throat and arrest the swelling of the glands which in your former case sloughed and laid bare the muscles of the neck, and involved both pharynx and larynx? Can we do nothing to allay the terrible heat of the skin,—ay, of the whole body? Nothing to avert the convulsions which are even now beginning to show themselves? He answers, "We are already using the regular treatment of the books for scarlet fever." I reply, Oh, doctor, if we could only forget the *name* of the disease, and prescribe for the suffering body; relieve the brain by *pouring* water on the head; cool the burning skin by sponging it all over rapidly with cold water, until the temperature should be reduced to 100°; give it ice, or iced-water or iced-cream, in its mouth, to cool its burning and suffering throat; apply ice in bladders to the glands of the neck, to avert the inflammation from them, we might then go away and return to-morrow to see our patient comfortable, and her mother's face radiant with joy. But we went away without doing those things. The lard was rubbed on the body, the bromide and aconite were given "to combat ataxic symptoms," the throat and brain were left to suffer, the temperature of the skin, 105° to 106°, was not attempted to be allayed; Death had it all his own way, laughing, as well he might, to see the bromide hunting him through the blood, while he sat enthroned and in full view on the brain, with his hands clenched around the throat, strangling his victim.

In Beaver county, Dr. Jackson reports eight mild cases and one severe one. "Treatment consisted mainly in the use of diffusible stimulants and tonics and externally stimulating and disinfecting lotions. The case ultimately recovered." The last sentence indicates that even that one severe case barely recovered. Look at the treatment. A child in full health taken sick with a febrile disease and an inflammation of the glands of the throat and neck, and the doctor pounces on it with stimulants outside and stimulants inside!

Let us go on to Bradford county, and see what our excellent friend Dr. Horton has done. He says,—

"In November and December scarlet fever appeared in a *grave* form. Depletion and evacuants were badly borne; tonics and stimulants frequently failed. The use of cold, though perhaps more successful than hot applications, has not always been satisfactory."

Well, there is a grain of comfort in the fact that some departure from the old kind of treatment was tried; though, as we know not how any of the means were used, we can profit but little from the report.

Columbia and Montour,—Dr. Suisher reports,—

"In the early part of last December scarlet fever attacked only a few families. It was of the most malignant type I ever witnessed. Of thirteen cases, six died, one a young man twenty years of age. In all the cases except one, death took place in less than forty-eight hours from the invasion of the disease. *The vital forces were so prostrated by the poison of the disease that reaction could not be established.* In no case were the throat-symptoms severe. Treatment appeared to be of little if any avail."

But, mark, we are not told how they were treated: had we been, we would query whether some other mode might not have done better. Indeed, from what Dr. S. says of a subsequent visitation of the disease, and of another mode of treatment, we believe he will soon be able to master cases like the above.

Now here let us pause a moment and look at the disease as it confronted the doctor. There lay the patient, with his vital forces so "prostrated by the poison of the disease that reaction could not be established, and treatment appeared to be of little avail." (What a boon it would be to know the treatment, so that we might avoid it!) But what are the vital forces of which he speaks? It is important to know what is meant by the phrase, for it is in the mouth of every man who meets with a case which proves fatal. The vital forces are prostrated. Do we mean by this that the blood is filled by a peculiar poison, which has changed it from a healthy to a morbid state, and that in this diseased condition it fails to nourish the body and thus death ensues? The early and persistent use of stimulants so early resorted to in such cases, to sustain the sinking or prostrate vital forces, while at the same time antiseptic remedies and chemical antidotes are given, indicates such a belief. And yet it is an erroneous belief, or else the treatment founded on it is not appropriate, for it does not succeed, and in nearly all such cases the physician writes, "treatment was of no avail." Or do we believe that this prostration of the vital forces, manifested by great muscular debility accompanied by increasing dulness of intellect or deep coma, is due to a *weakened* nerve-force caused by some noxious agent acting primarily on the nervous system, and thus prostrating the vital forces (for what is the vital force but the nerve-force?), as occurs in instantaneous death produced when prussic acid is applied to the nose or tongue of a dog, or in death which ensues in a few minutes after strychnia is inserted into his thigh, as occurred in Pennock's experiments?

(To be continued.)

Extraordinary Fecundity (*British Medical Journal*, Nov. 30).—The following is a copy of a newspaper paragraph, cut out some time ago. "The *Northern Ensign* states that a shepherd in the parish of Latheron, named Cameron, who has reached the patriarchal age of seventy-six, has just become the happy father of his fourth child since he passed his seventieth year. When seventy years old, he was married for the second time; and the produce of the second marriage has been four thriving 'coasters.'"—S. H.

CASES OF CEREBRAL MENINGITIS.

BY JAMES D. McGAUGHEY, M.D.,

Wallingford, Conn.

(Concluded from page 197.)

CASE III.—James K., aged 24. Has been tuberculous for several years; cough, expectoration, and hemorrhage. I had been attending him on account of a fresh tuberculous deposit at base of left lung, which ripened and discharged itself through the bronchial tubes. Expectoration and cough grew better, also the pleuritic and neuralgic pains that had troubled the left side and intercostal spaces,—these had previously been sources of great distress. The patient, feeling much better, and his condition greatly improved, though suffering from weakness, concluded to visit a relative, living at some distance, on horseback. He had complained of headache before starting, which in a day or two increased to such severity as to compel him to return home and go to bed. When I saw him again, cough had increased a little, also expectoration and the pains throughout the chest. The pain in the head now was intense, and was greatly aggravated on moving or from any jarring noise. Pain radiated over the whole head, extending into the eyes, sides of the nose, and down into the jaws, back part of the head, and down the spinal column. No delirium. Pain steady, with the exception of occasional paroxysms that produced the keenest suffering. Lies with eyes half closed; they were intolerant of light, though hearing was morbidly dull. Face flushes occasionally, but generally of pale or natural color. Heat of head not abnormal to the hand. Pupils do not respond well to light. Tongue moderately furred. Respiration not greatly hurried. Pulse 60, of a slow, reluctant beat, irregular. Bowels constipated. This is a general history of the case. It progressed with but little variation in the symptoms for three or four days. Some time during the fourth day delirium came on, and the general quiet which the patient had maintained was broken up, and he became very restless; pupils contracted; complete anorexia; feet cool pretty much all the time. Up to this period the treatment consisted principally in moderating the vomiting; overcoming constipation; quieting pain; perfect and absolute stillness in the room; *large doses of iodide of potassium;* blistering over nucha. On the eighth day no change, but a gradual aggravation of all the symptoms; debility becoming more evident, with increase of delirium. Quinine and nux vomica, combined with the cautious use of brandy, were given to sustain life. On the ninth day the delirium assumed a more violent type; patient would forcibly get out of bed and attempt to go out-doors; wild staring look; spastic contractions of the muscles of the neck, and general tonic spasms. Tenth day, lies with eyes half closed; squinting superadded; eyes infected. From this time forward, symptoms grew worse rapidly; countenance of a dark bronzed hue. After a partial convulsion, lost the use of the tongue. Pulse 99 and irregular; surface rather cool, with a slight clammy moisture; bowels not moved for four or five days. Twelfth day, talks incoherently, or rather mumbles, as the tongue is still entirely paralyzed; utter delirium,—entirely unconscious of any one around; pulse weak; will take no medicine; urine dribbles away involuntarily; comatose condition prevailing; respirations irregular; carphologia; paralysis on left side, and, twenty-four hours thereafter, death.

Remarks.—That a considerable number of cases of pulmonary tuberculosis die with tubercular meningitis, there is no doubt; and that that mystical entity, scrofula, is either identical with or closely allied to tuberculosis of the lungs, and renders the nervous system of those suffering under its affixation to the economy more liable to disease, especially of the brain, is becoming more widely recognized every day, and such diathesis of the system taken more into consideration in the treatment of disease. Though tubercular meningitis is much more common in children than in adults, it is by no means a rare disease in the latter; for I know of at least three cases that died not very far distant from each other. It appears to me of some moment to discriminate between those cases of true pulmonary tuberculosis *dying with meningitis*, and those dying in far-advanced consumption,—the system debilitated, worn down,—anæmic, cachectic, with strong cerebral symptoms. In the former the secondary inflammation is set up by actual deposit in the brain (I am not aware of any existing facts going to show that inflammation of any of the cerebral organs precedes the deposition of tubercle), causing meningitis; in the latter the phenomena pertaining to the brain are produced by *cerebral exhaustion* from *inanition* of the nervous system. Thus, the vice being in the lungs, they are slowly consumed, and commensurately with the ravages of the disease in the lungs the entire system sympathizes, and the functions of all the organs are impaired; digestive powers are perverted, assimilation of food imperfect, and the nervous system, failing to receive its wonted healthful stimulus, starved as it were by the unwholesome ingestion of devitalized blood, sets up those cerebral symptoms which are observed in the winding-up of many long, exhausting, and debilitating diseases, as, for instance, the cerebral and spinal symptoms of typhoid fever, called by some *subacute* meningitis, but really a *subacute* exhaustion if anything. We see coma in exhaustion, as well as in acute inflammatory conditions of the brain. I saw a patient die from secondary meningitis produced by concussion of the brain, some years ago; and as he lay in partial coma, with muttering delirium, face deadly pale, cold extremities, and involuntary discharges from the bowels, his attendants, two physicians of twenty years' practice each, strictly prohibited the use of brandy or quinine, fearing it would increase the inflammation or *reproduce* it, when the ebb of life was so low and feeble in the system that the pulse at the wrist was *imperceptible* for three or four days before death. Here then was a patient with complete cerebral and nervous exhaustion, dying for want of proper stimulus, because his case was looked upon as still acute,—simply as it was the brain suffering; forgetting the point where the acute left off and cerebral and general nervous exhaustion came in; forgetting that cerebral exhaustion is the *same in all cases*, whether coming from extraneous organs or the *brain itself*. Then of how great importance it is, not to confound *acute* cerebral symptoms with the same symptoms produced by *exhaustion!* The epiphenomena of the nervous system are so puzzling and peculiar that often cause is confounded for effect, and *vice versâ*. The case now under consideration did not present long-continued or far-advanced phthisis; there was physical evidence of a deposit, softening

and discharge of a tuberculous mass, with subsequent cicatrization, or at least cessation of discharge from the vomica; cessation of cough and pain, the pleuritic pain, and intercostal neuralgia; return of appetite, so that the patient was able to ride on horseback two or three miles. Then meningitis commenced; shortly thereafter, lung-trouble increased, pain in left side became troublesome, expectoration more abundant, return of cough, showing the tendency of tuberculosis, manifested a more general determination of visiting the brain as well as lungs, and perhaps other organs of the system. After the hopeful lull came the fatal reproduction of tuberculosis.

Williams gives in Case 77 of his work on Consumption a history of a case of acute tuberculosis dying with tubercular arachnitis, and says, "Four days ago came on pain in the head and intolerance of light, with fetid discharge from left ear; *increase of cough, feverish heat*, etc." Tubercles were found scattered through the lungs and spleen; granulations in the peritoneum and on covering of the liver; and in the *arachnoid* and *choroid* plexus of the brain. I am sorry I was not allowed to verify my own diagnosis by a post-mortem.

Case IV.—Was called to see a young lady 24 years of age, unmarried, who had been indisposed a day or two; she complained of nothing particularly, excepting a general inexplicable bad feeling, amounting to malaise, anorexia, slight, dull pain in the head; but little fever, pulse quiet. A close examination elicited nothing as to the cause, and I concluded the symptoms were from cold, etc.; gave a mercurial cathartic, to be followed by salts. I found the patient in a day or two a great deal worse; pain in the head greatly increased, extending from the occiput to the forehead. Pulse 80, with a peculiar, contracted, reluctant beat; eyes dull-looking, countenance of a bronzed hue; somewhat intolerant of light and sound; gastric disturbance, also constipation. Pain in the head increased, with delirium; shouts, sings, and whistles; dark suffused look of eyes and face; eyes seem to hang or project out on to the cheeks, bringing into view almost two-thirds of the globe, a phenomenon I never saw before or since in meningitis. Very drowsy, stupid, and dull. After severe, hard, and persistent purging, pulse ran up to 120, and after three days commenced gradually declining, and patient recovered in about three weeks.

The only way I could satisfactorily account for the attack was this: the young lady had a very fine head of hair, and of course was very proud of it, and, to stimulate its growth and keep the scalp free from dandruff, would saturate the scalp thoroughly with Ayer's "Hair Vigor" very often, and then sit before the fire until the hair became dry enough to put up. I supposed the sugar of lead contained in the above preparation to be the prime cause; either in producing a retrocession of some scalp-eruption, or by being put in such close contact with the brain, through absorption, setting up an inflammation by some way or manner inexplicable. If I remember rightly, the analysis of hair-preparations, made at the Bellevue College, gave that of Ayer as containing fifteen grains of acetate of lead to the ounce, a larger amount than in any of the other fourteen preparations examined.

TRANSLATIONS.

OUTLINES OF A SYSTEM OF PHYSICAL OTIATRICS.

Translated from the German of Dr. Erhard, Instructor in the University of Berlin,

BY C. H. BURNETT, M.D.

(Continued from p. 184.)

Class III.—Those hard of hearing who perceive ordinary noises normally, but musical tones abnormally, *per ossa*. These cases are generally rare. Speech is heard always with difficulty, *i.e.*, practically not understood at all. If, at the same time, the hearing for noises *per cavitatem* is diminished, we may assume that deposits in the cavum tympani impede the action of the conductor of sound and interfere with the proper isolation of the ossicles, without, however, exercising any pressure upon the labyrinth-water, but that, with these changes, the resonance of the labyrinth-water has been destroyed, either on account of obliteration of the fenestræ or through absolutely defective consonance of the air in the cavum tympani. If, on the other hand, the conductor in the cavum tympani is normal, *i.e.*, if noises are properly conducted by it, but not musical sounds, we have either a case of defective innervation of the ramus, cochleæ, or of morphological changes in the region of the zonula membranacea. The most interesting case of the kind was the following: A patient lost his hearing for the human voice suddenly, after a plunge-bath, but retained a relatively good hearing for noises. Patient heard the watch *per ossa*, the scratching of a pen in writing was heard *per aërem*, and also a light tap at the door or window, but he could not hear the loudest words. I asked him to describe to me the impression my loudest speaking made upon him.

A high "i," a deep "u," a loud "a," he heard simply as unmeaning noises, or impulses in the air; as, for instance, "hst," "pst," etc.

Class IV.—Those hard of hearing who perceive, *per ossa*, both noises and musical sounds less than normally. The degree of the loss of hearing varies, amounting in some instances to *total* deafness for ordinary sounds, and in others for musical tones. Under this head we have several subdivisions.

1. In some cases of weakened hearing *per ossa*, we find the ability to hear relatively well both noises and musical tones *per cavitatem; i.e.*, they hear speech relatively very well. In such cases, if the entire conducting apparatus as well as the pressure and resonance are normal, and the Eustachian tubes are in a state of integrity, the cause of the existing alterations in function must be sought for in defective innervation of both branches of the acoustic nerve, caused by morphological changes in its terminal apparatus.

2. More frequently we meet at the same time with a diminished conduction and resonance in the cavity of the tympanum. In such cases, the altered function is due to deposits in the cavity of the tympanum, which interfere with its functions and at the same time press upon the water of the labyrinth, overcome the elasticity of the membranes of the foramina, and also bring about cellular irritation in the contents of the labyrinth. This is usually the termination of those cases of at first slight, yet constantly increasing, deafness, which are caused and kept up by insufficient ventilation in the cavity of the tympanum.

3. Absolute deafness *per ossa* is finally succeeded by deaf-dumbness. This loss of hearing is partly caused by central paralysis of both acoustic nerves, induced by extravasations and exudations at their origin, resulting from concussion, apoplexy, hydrocephalus, etc., or in some cases the cause may be hyperplastic processes in

the labyrinth, as in meningitis cerebro-spinalis. In these cases we see unsteadiness of gait, titubation, etc., as the result of the pressure of the hyperplastic process upon the membranous labyrinth.

Congenital absolute deafness is rare.

Temporary absolute deafness may arise from excessive pressure on the external meatus, in cases of furuncle, or it may arise from an instantaneous closure of the Eustachian tube. In this connection, the following case is instructive: I was informed that an apothecary's apprentice became deaf every day in the forenoon, when he was especially engaged among acrid and irritating drugs, and this deafness remained several hours when it had once set in. At the time of the first examination I discovered nothing but a catarrh of the pharynx, and I was forced to conclude that the extraordinary symptoms of deafness were produced solely by portions of mucus forced into the mouth of the Eustachian tube, and thereby cutting off the supply of air in the tympanum, which was brought about by the accelerated inspiration and expiration induced by the action of the irritating drugs upon the inflamed mucous membrane. I intimated to the patient that I would examine his hearing after the use of some smelling-salts and the introduction of air into the tympanum, *lege artis*. The robust, healthy, normally hearing patient applied a bottle of acetic ether to his nose, snuffed at it strongly, fell senseless to the floor, and became absolutely deaf to the loudest noises and notes, both *per ossa* and *per cavitatem*. It was necessary to shake him into consciousness; yet upon introducing air into the tympanum all these strange symptoms instantly disappeared. His ability "to hear" or "not to hear" was completely within my power, and I could show him to my pupils as I would an apparatus illustrative of physical experiments in acoustics. Recreation and cessation from his ordinary labors cured the catarrh, and with that the above-mentioned phenomenon disappeared, which, while it was present, demonstrated so forcibly the intimate connection of the single part of the organs of hearing with the whole.

In conclusion, I would mention a few observations which seem to indicate an altered reaction of the zonula membranacea. Just as we, by pressure upon the pedal of a piano, are able to alter the "clang-tint" of the instrument, so may a specific pressure upon the labyrinth-water, or directly upon Corti's organ, alter—*i.e.* heighten—the fundamental note of the fibres of the organ of Corti.

In inflammations of the external meatus, which alter, as has already been shown, the pressure in the organ of hearing, temporary double hearing may occur, so that an instrument is heard as though it possessed two clang-tints, the healthy ear perceiving the normal clang-tint and the diseased ear the abnormal clang-tint. This phenomenon disappears with the cessation of the inflammation. As in a piano, if certain strings are broken, they only cease to sound, so in the zonula membranacea, which has different fundamental notes at different localities, certain portions may suddenly lose their resonating power (usually produced by concussion at these points), and although the general hearing-power may remain unaltered, the power to perceive the notes corresponding to the defective spots in the zonula membranacea will be destroyed.

Thus we may account for the inability on the part of some individuals to hear canary-birds, although they are able to hear a thrush; neither can they hear an ordinary post-horn, but they perceive perfectly the tones of a piano or violin.

Thus we are enabled, by the pathological physics of the organ of hearing, to establish Helmholtz's theory of vibration.

Without definite acoustics, there can be no advance in Otiatrics.

Wound of Abdomen, with Injury of Intestine—Recovery (By Henry Horton, M.R.C.S., Eardisley: *Brit. Med. Journal*, Sept. 28, 1872).—On August 9, 1865, late at night, I was called to see F. M., a woodcutter, who, as the messenger most truly described the case, had walked into the town with his intestines in his hand. He had brought wood into the town, and was returning, as was his custom, with a bottle of rum inside his guernsey. When about a mile or so on the way home, the night being very dark, he drove his cart into a pit. He was thrown off, and the bottle was broken into several pieces. A portion, in shape like a huge lancet, penetrated the abdomen to the left, and about two inches below the umbilicus, making an irregular-shaped wound externally, cutting through the large omentum, and dividing the peritoneal coat of the jejunum. Protrusion occurred on his rising, and increased at every step until he reached the town; so that when I saw him there were from ten to twelve inches of intestine and a rather large piece of omentum to be dealt with. There had not been much bleeding, but the omentum was darker than natural, and, as also the protruded bowel, quite cold. As there was not much prostration, and the patient was otherwise in good health, we (another practitioner had been sent for and arrived about the same time) thought it the best course to return all *en masse*. This was done, and five silver wire sutures were applied. Full doses of opium with a little calomel were given every two hours. Next day, August 10, I saw him twice, as there was a good deal of tenderness and threatened peritonitis; but, on the whole, he had passed a tolerable night. He was ordered to continue the powders. On August 11, 12, and 13, he was seen once daily, and nothing special had then occurred. On the 14th, there was very great distention of the abdomen from fluid, so that I had to loosen the lowest suture; when, after turning the patient as much as possible into the prone position, a great quantity of bloody, grumous-looking contents escaped, to the great relief of my patient, and, I must say, to my own personal alarm. On the 15th, the condition was even more alarming; and, as he complained of very great thirst, I gave him an anodyne mixture with mineral acid. This state of things continued for the next three days, and each morning a further quantity of fluid was evacuated from the abdominal cavity. On the 19th, a gradual improvement set in, which continued without any drawback until August 30, on which date I took leave of my patient, who, in a few days afterwards, resumed his ordinary employment.

I saw him several times during the next three or four years, and the only complaint was that he sometimes felt a little "pinching" just at the part injured, and which, I suppose, was the result of the omentum becoming adherent to the abdominal wall at that spot. In every other respect he declared that he was as well as he ever had been.

Syphilitic Infection by a Lozenge (*British Medical Journal*, Nov. 30, 1872).—Dr. John Murray says, "When attending the clinique of M. Hardy at the Hôpital St. Louis, in Paris, I saw a case of syphilis of a similar character to that mentioned by Dr. Drysdale, of infection from smoking a cigar. The subject was a child of about five years of age, who was brought to the hospital with a cutaneous eruption of an unmistakably syphilitic character, combined with other constitutional and local signs, the exact nature of which I now forget. M. Hardy was at first unable to trace the infective cause. He at length discovered that the child's brother was the subject of constitutional syphilis, and that some time previously he had, before the young patient presented any symptoms, given his sister a lozenge to suck, which had been partially dissolved in his mouth, and had thus infected the child."

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

WONDERFUL VITALITY.

THROUGH the kindness of "a medical student," to whom we hereby return our thanks, we have received a copy of a most extraordinary publication. It is called "*The Journal of Progressive Medicine*," and purports to be the supplement of vol. x., No. 3, for May and June, 1872, issued by the American University of Philadelphia, 514 Pine Street. As the charter of this institution was revoked in April, there would seem to be here a sort of post-mortem parturition, unless a school can be carried on without such an instrument.

This school, however, ought to be not only in existence, but flourishing, since they make, after stating their thirty-five-dollar fees for the course, this truly generous offer: "Fifty young men, who believe in Eclecticism and the American system of practice, who are unable to pay the above fees, if recommended by a liberal physician, will be taken free of all expense." Assuredly the Professors must be men of private fortunes. For, supposing them to succeed in getting four hundred students at the above-mentioned rate, the income they would have to divide ($12,250 among eight) would give each one only a little over $1500. Since, however, they have not one hundred students (see the testimony before the Select Committee of the State Senate), the gross proceeds of each Professor's teaching cannot be much over $400; which would obviously be lessened by one-half if the number of beneficiaries on the free list were filled up. Hence we must either ascribe to this faculty a superhuman generosity in making such offers, or suppose them gentlemen of private fortune, who engage in teaching purely as a matter of taste, and not with the sordid view of making a living. No, one other theory suggests itself,—that they eke out the certainly scanty returns from their classes by selling diplomas to any and every one who will buy them.

As to the matter of the charter, we will let "Dr. Joseph Sites, Dean," speak for himself and colleagues; which he does in the following extraordinary specimen of bad grammar and mixed metaphor:

"In 1860 corrupt influences were at work, and a secession took place from our school; the seceders obtained a Charter from the Legislature, calling their school the Eclectic Medical College of Philadelphia, announcing themselves as true Eclectics—a name so near ours well calculated to deceive. Many times have they changed their name, and been guilty of various corrupt practices, which has brought our noble profession into disrepute. We have repeatedly, in the past, warned the profession through the journal and otherwise, against the machinations of the parasite. We have done our best to prevent such impositions on the public and profession, but in vain. Their acts have become so bold that the press took notice of them, and by this means their defects were brought to the notice of the Legislature, who repealed their charter with many names.

"Thus terminated the foul blot upon our profession. As their name was so near ours as to deceive many, we have concluded to accept of a University Charter which has been generously granted us by a liberal-minded Legislature; under this we propose to conduct our school—under this we propose to unite the profession of our city and State—every element of strength, viz., THE AMERICAN UNIVERSITY OF PHILADELPHIA.

"The University is to be intrinsically, essentially and eternally Eclectic; the principles of Beach are to be its guiding star—the true American system of practice.

"This course is deemed advisable for several important reasons:

"It obliterates all the old prejudices of the rival schools, and harmonizes the profession. Students prefer to graduate, in all cases, from a University to that of a College. It gives them a better standing in the profession and among the people. It opens a more diversified field, and will enable us to open up a Department of Arts and Theology as well as Medicine.

"The Addendum" (!) "Degree of the University will be conferred upon all the living graduates of the Eclectic Medical College of Pennsylvania, thus bringing every graduate under the folds of the University, the only Eclectic University in the world. A new era of progress is upon us, and we call upon Eclectic physicians throughout the State to unite to form county societies

at once; to pledge themselves, by all they hold dear, to arrest the intolerance of Allopathy, and shun the expectant treatment of the Homœopath. War has been declared; truth can never be obliterated. All we need is united effort and labor. Pledge your senators and representatives to our school in your different districts. Do it now—do not delay—let your manhood inspire you—bear in mind that you are an American, and that no money of the Allopath can enslave you—that freedom to you in medicine, as in religion and politics, is as essential to you as the air you breathe."

In plain language, this thing is a most infamous evasion of the law. The whole concern is a humbug, of which we shall warn the profession, and the public so far as we can, at every opportunity. Sites, Buchanan, and their less notorious colleagues are engaged in a scheme for swindling, or enabling others to swindle, every community among whom a medical degree can be used as a passport to practice. The honor of the profession, no less than the interest of humanity, calls for their effectual suppression at the earliest possible moment.

A RENEGADE.

IN the list of former Vice-Presidents of the American Medical Association may be found the name of Christopher C. Cox. We shall go no further into his history than to say that we can bear testimony to his having been on more than one occasion an irrepressible nuisance at the meetings of that body, over which, however, we believe he never presided.

We merely wish now to quote the following passages from *The Ohio Medical and Surgical Reporter*, a homœopathic journal, for September, 1872, and to express the hope that Dr. Cox's name will be ordered to be erased from the list of members of the American Medical Association at its next meeting.

The article is headed "'Medicine as a Liberal Science,' by Dr. C. C. Cox, Washington, D.C.," and begins, "At the reception given to the American Institute of Homœopathy by Governor Cook, of the District of Columbia, . . . Dr. Cox said, 'It is not necessary to assure you, gentlemen, how sensibly I feel all the kind expressions I have heard here to-night, and on prior occasions since your Institute has been in session. . . . I need not say to you that I do not feel myself degraded by the company in which I find myself, but, on the contrary, I will assert that I feel myself honored. . . . The time will never come when I, as a member of any body engaged in service for the public good, shall stop to inquire whether the man who sits next to me is a disciple of Galen or of Hahnemann. . . . It is presumption for one class of men—and in this connection I regret to allude to the American Medical Association—to say that because one is of a particular color, or believes in the doctrines of Hahnemann, or he or she entertains opinions of their own in regard to the practice of medicine,—it is the height of presumption, I say, for any class of men to say that against such applicants the doors of the temple of science are to be closed. . . . I wish to say here that it is alike the duty of Allopaths and Homœopaths, as a body of devotees to science, to join together in an effort to break down the barriers of bigotry and prejudice that exist to-day (cries of Good! Good! and applause). It is our duty to stand together in an effort to put down exclusiveness.'"

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, NOVEMBER 14, 1872.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. JOHN S. PARRY exhibited a specimen of *primary cancer of the vagina* which had been removed by *scraping*. (The case will be published in a later number of the *Medical Times*.)

Dr. J. EWING MEARS desired to know whether Dr. Parry limited this treatment to cancer of the vagina. He had frequently seen it used by Dr. Atlee in the treatment of cases where the seat of the affection was the os uteri.

Dr. PARRY replied that he did not say this treatment was very novel. Years ago Dr. Lunson, of Edinburgh, removed morbid growths by scraping, but used only the nails. Some French surgeons have also resorted to it, but it has never been systematically carried out. So far is it from being alluded to in the text-books that, on the other hand, we are urged to be careful lest we produce hemorrhage in the ordinary digital examination. Prof. Thomas, of New York, discourages the use of the speculum in such cases, lest hemorrhage ensue.

He did not think the danger from hemorrhage great, and scarcely considered it necessary to use the persulphate of iron to arrest it. Had he had proper instruments in his own case, he would not have used the subsulphate of iron to arrest the flow of blood with the removal of the diseased tissues. The hemorrhage grows less as we proceed. He would, however, use mild caustics, or Monsel's solution, to remove portions which cannot otherwise be destroyed.

Dr. H. LENOX HODGE said, in reference to the treatment of cancer of the vagina by scraping away the morbid mass, that although it may not be alluded to in the books, it has been at times resorted to. He referred to a case which occurred in one of our hospitals as long as twelve years ago, in which an eminent practitioner, while scraping away with his hand the cancerous mass on the posterior wall of the vagina, entered the peritoneal cavity, and fatal inflammation resulted.

Dr. JAMES TYSON exhibited a pair of *granular contracted kidneys* and a *congenitally deficient left lung*.

All were removed from a married woman, aged 38, who was admitted to the Philadelphia Hospital, October 18, 1872, and died on the 3d of November, in uræmic coma. The symptoms during her residence in the hospital were chiefly those of acute inflammation of the kidneys, deficient secretion of bloody urine, large quantities of albumen, blood-casts, hyaline and granular casts. Some of the latter were very long, and contained occasionally fragments of epithelial cells, but there were no epithelial casts. The quantity of urine ranged from a few drachms to six ounces in twenty-four hours, and the urea eliminated, as determined by volumetric analysis, was as low as twenty-five grains in the twenty-four hours. She was also the subject of general œdema, ascites, and hydrothorax. From the previous history, however, the diagnosis made was *granular degeneration of the kidneys*, on which an acute inflammation had supervened.

Post-mortem examination was made six hours after death. The *kidneys* were perfect examples of the chronically contracted organ, each weighing *three* ounces, but were also acutely congested.

The body was œdematous, as described before death. On section, hydrothorax of both sides, with some adhesion on the right by moderately recent lymph.

The *left lung* in its entirety was about one-third the normal size, composed of two lobes, an upper, larger, measuring four and a half inches by three and a half, with a teat-like projection, an inch long, of lung-substance projecting from its inferior anterior angle; and a smaller inferior lobe, measuring three and a quarter inches by two and a quarter. The first impression obtained on opening the thorax was that the lung had been compressed by the effused fluid; but further examination showed what seemed to be a congenital condition.

The *heart* was hypertrophied, weighing eighteen ounces. The mitral valves were slightly thickened, but otherwise normal.

The *left lung* was referred to the Committee on Morbid Growths, to be reported on.

Dr. TYSON also exhibited the *large intestine of a cat* which was the seat of obstruction about two inches below the ileo-cœcal valve. The animal had symptoms of obstruction for some time before death, chiefly constant vomiting of food, and almost total absence of discharges from the bowels. Extreme emaciation preceded death.

REVIEWS AND BOOK NOTICES.

ON SOME AFFECTIONS OF THE LIVER AND INTESTINAL CANAL, WITH REMARKS ON AGUE, ETC. By STEPHEN H. WARD, M.D. Lond., etc. 8vo, pp. 260. Philadelphia, Lindsay & Blakiston, 1872.

We have grouped together here a number of interesting articles, the introductory or didactic portion of each being illustrated by clinical cases, told in good, plain English, clearly and to the point,—possessing the advantages that history told with an object always has over even the most accurate reports of the best clinical clerk.

The diseases of the liver treated of are abscess, cirrhosis, hydatids, jaundice, and functional derangements. Then follow diseases of the intestinal canal, viz., obstructions, dysentery, peritonitis, perityphlitis; then malarial disorders, with scurvy, leuchæmia, and purpura. The book seems to contain few errors: however, on page 194, in regard to the return of arrested ague, the author says, "The period of relapse in the few cases in which I could determine it, having recurred on the day on which the fit would have taken place had the disease not been arrested." We should like to know how the author discovered this, his illustration of the above only serving to cast a denser gloom over the matter; as he says, "Thus I find in one case of tertian the fit occurring on the eighteenth day after the last, and in other cases on the twelfth."

The author recommends the giving of a full dose of quinia, ten grains or more, three hours before the expected return. He also brings forward additional testimony to its prophylactic power in small doses.

To the use of condensed water on shipboard he attributes many cases of scurvy. His reasons, insufficient indeed, are, however, strong enough to suggest further observation. The author is a believer in moderate medication. His treatment seems, throughout, sound and sensible, and the whole book well repays its readers; his cases being of that character best described by saying that one recognizes many of them at once as old familiar friends or enemies.

BOOKS AND PAMPHLETS RECEIVED.

Clinical Lectures on Diseases Peculiar to Women. By Lombe Atthill, M.D. Univ. Dubl., etc. etc. Second Edition, Revised and Enlarged. Crown 8vo, pp. 241. Philadelphia, Lindsay & Blakiston, 1873.

Surgical Diseases of Infants and Children. By M. P. Guersant, Honorary Surgeon of the Hôpital des Enfants Malades, Paris, etc. Translated from the French by Richard J. Dunglison, M.D. 8vo, pp. 354. Philadelphia, Henry C. Lea, 1873.

Aids to the Diagnosis of Diseases of the Kidneys. By W. R. Basham, M.D., etc. 8vo, pp. 48. Philadelphia, Lindsay & Blakiston, 1872.

An Examination of Professor Reese's "Review of the Trial of Mrs. Wharton for the Murder of General Ketchum." By Philip C. Williams, M.D. 8vo, pp. 31. Baltimore, Turnbull Brothers, 1872.

On the Use of the Seton in the Treatment of some Chronic Affections of the Womb. By Ely Van de Warker, M.D., etc. Reprinted from the *Journal of Obstetrics*. 8vo, pp. 16. New York, 1872.

Fœticide and Criminal Abortion: an Introductory Lecture. By Hugh L. Hodge, M.D. Fourth Edition. 18mo, pp. 55. Philadelphia, Lindsay & Blakiston, 1872.

GLEANINGS FROM OUR EXCHANGES.

ON PUNCTURE OF THE BLADDER PERFORMED IN THE HYPOGASTRIC REGION BY MEANS OF THE CAPILLARY TROCAR AND PNEUMATIC ASPIRATION.—M. Léon Labbé, in *The Practitioner* for October, 1872, says: There occur in practice a certain number of cases in which the natural passages do not permit us to penetrate into the bladder and to remove retention of urine.

Hypertrophy of the prostate, some very narrow strictures of the urethra, laceration of the canal caused by external traumatisms or by forcible catheterism, are the principal causes which bring on complete retention of urine, and give rise to indications for active surgical intervention bearing upon other situations than the normal passages.

Perineal puncture has been abandoned by surgeons as being a most detestable operation.

Recto-vesical puncture, more or less advocated at

various times by some surgeons, still enjoys a certain degree of favor; and quite recently, at the meeting of the British Medical Association, at Birmingham, Professor Pemberton related the results of his practice on this point.

In France M. Voillemier has employed, once only, *sub-pubic puncture*. The attempt was a successful one. But this is a procedure of somewhat difficult execution, and does not seem to exclude the possibility of wounding some important organ, or the liability to urinary infiltration.

Lastly, *hypogastric puncture*, effected by means of large curved trocars, has been generally accepted by French surgeons. A great many of them, however, think the procedure must be practised only as an extreme resource; and therein lies perhaps the cause of a great number of failures. Now, an attentive investigation of all the facts has shown, as is well brought out by M. Pouliot in his inaugural thesis (Ponction Vésicale Hypogastrique, Thesis No. 110, Paris, 1868), that—

1. In healthy men, almost all young, puncture necessitated by traumatic causes is almost without danger.

2. Chances of success diminish in cases of stricture, because in these instances we find among those operated on individuals who are exhausted by suffering, and reduced, as it were, to the condition of the aged.

3. Lastly, in senile affections, failure is about as frequent as success.

Under all circumstances, hypogastric puncture practised by the old rules, even in an individual placed in the best conditions, is an operation of some gravity, involving for the patient and the surgeon the necessity of minute precautions, with the object of maintaining the canula exactly *in situ*, for a time which varies according as the flow of urine through the natural passages is more or less rapidly re-established. This canula, or the permanent sound which was substituted for it in a certain number of cases, might irritate or ulcerate the walls of the bladder as the organ returned to its normal size. Urinary infiltration, resulting from the passage of the urine between the canula or sound when the bladder contracted, has been observed in some cases. Lastly, persistent hypogastric fistulæ, though they are rare, must be taken into account in appreciating the value of the proceeding.

It is a thing of habitual notice with surgeons who have had occasion to perform puncture of the bladder by whatever proceeding, that when once the bladder is emptied, and consequently the normal relations of this organ re-established, and when the tenesmus of the whole region is overcome, it becomes *generally* possible in a short time (a few hours, a day, two or three days) to re-establish the course of urine through the normal passages, whether the cause of the retention be due to traumatisms of the urethra, hypertrophy of the prostate, false passages produced by the hand of the surgeon, or very narrow strictures of the canal.

The knowledge of these facts naturally encouraged surgeons to seek for an operative procedure by means of which they might carry out the leading indication, namely, *to empty the abnormally distended bladder, and to gain time, so as to re-establish the natural passages without, if this be possible, causing the patient to run the risks of a serious operation.*

When M. Dieulafoy availed himself more completely than his predecessors of the notions which existed of the utility of capillary puncture on the one hand, and of previous vacuum applied to the aspiration of fluids on the other hand, and ingeniously combined these two means of action, he put surgeons in possession of a precious means of evacuating collections of liquids more or less deeply seated.

Dr. Labbé next details three cases, one attended with complete success, the other two with temporary relief only. He then gives three other cases, occurring under his own care during the present year, in two of which the benefit was complete and permanent, while in the other the patient sank from old lesions; and closes his paper as follows:—

"From all the foregoing facts the following conclusions may be drawn:—

"1. That capillary hypogastric puncture is a perfectly harmless operation.

"2. That in all cases it must be substituted for ordinary hypogastric puncture.

"3. That in a great number of cases it may, when only once practised, allow the surgeon to penetrate afterwards into the bladder through the natural passages.

"4. That in certain cases where catheterism is impossible, it may be performed three or four times a day without any injurious effect, and thus permit the surgeon to gain time and restore the natural passages; and at the very least it constitutes a palliative means of the highest importance."

Amputations at the Hip-Joint.—Three successful operations of this kind have been reported within the last year.

Dr. T. A. McGraw, Professor of Surgery in Detroit Medical College, reports one in the Transactions of the Michigan State Medical Society. The case was that of a man 54 years of age, who, when 16 years old, sustained a fracture of both thigh-bones at their necks, by the caving in of a bank of earth. Ten years ago, a small tumor appeared on the outer side of the lower third of the right thigh. This existed seven years, and was then removed by operation. Four times it recurred and was removed. He finally entered the Harper Hospital in Detroit, and on the 4th of March Dr. McGraw amputated the limb by large lateral flaps. There was no cachexia, and no involvement of lymphatic glands. A marked feature of the after-treatment was the use of oxygen gas by inhalation, as a stimulant. The only drawback to his recovery was an attack of erysipelas; but eight weeks after the operation he was about on crutches, and one month later he was driven two miles and assisted up two flights of stairs to get his photograph taken.

Mr. Morrant Baker (*Lancet*, Sept. 21), on the 15th of August, amputated the left thigh at the hip-joint, for necrosis, in a young man aged 22, a patient at St. Bartholomew's Hospital, London. Chloroform was given, and an abdominal tourniquet used. Antero-posterior flaps were made, and on Sept. 5 the wound is reported as rapidly healing, the last ligature having come away.

The third case is mentioned in the *British Medical Journal* of Nov. 23, as occurring in the Manchester Royal Infirmary. The report says, "The patient, a lad of seventeen, was admitted into the hospital, under the care of Mr. Lund, for spina ventosa of the lower end of the femur. On November 1, Mr. Lund amputated at the hip-joint; and at the present date (November 18) the wound and the lad are both nearly well. The operation, which was most skilfully performed, occupied thirty-five seconds, and was treated, both at the time of operation and since, on the strictest antiseptic principles, as, indeed, Mr. Lund treats all his cases. From first to last the boy has never had a bad symptom."

Phlegmon of the Scrotum with Issue of Lumbrici.—This case is quoted in the *Lancet* of Nov. 9, as recorded in the *Imparziale* of Florence by Dr. Termini. The patient was a child aged 10 years, who suddenly experienced severe pain in the scrotum. This was followed by the discovery of a phlegmon of the spermatic cord. Poultices were applied, and after seven days an abscess had formed. The gathering

was opened by means of a lancet, and poultices again applied. Two days after, a large worm was found on the poultice. Santonine was then administered, and was followed by the expulsion of eleven lumbrici through the scrotum, and of several others by the bowels. The child got better, but three months later Dr. Termini was again called in, and ascertained the existence of inguinal hernia on the right side, which was easily reduced. It is obvious that the hernia existed at the very beginning of the case, that inflammation supervened in the sac, and was followed by an abscess which broke of itself or was opened, and that the lumbrici which came out by the scrotum proceeded from the bowel. It is strange, however, that nothing is recorded as to the escape of fæcal matter with the worms, or the existence of any symptoms attending such an extensive laceration of the intestine.—(See *Phil. Med. Times* for Dec. 21, p. 178, for an analogous case.)

MISCELLANY.

The Key to the Chamber of Science.—*The Clinic* (Cincinnati) of December 7 contains the following:

"A physician in the vicinity of Lyons, Dr. X——, was called a short time ago to treat an accident as curious as rare in the annals of medical science.

"Startled in the night by a tumult at his gate, as uproarious as frequently repeated, the good doctor rushed to his window and demanded the cause of an alarm of this kind at so late an hour. It would be useless for us to attempt to report the conversation which occurred between our worthy confrère and the luckless messenger at his gate, so we will let the facts speak for themselves.

"An unfortunate female, living a short distance from Lyons, had suffered for several days with a violent pain in the side, radiating over the belly. Having exhausted, in vain, all the therapeutic skill of the good mothers of the village, she determined to resort at last, on the evening of the message to the doctor, to a method of treatment recommended by one of these dames, viz., the application of what is called in that section of the country an *aventure* (a cupping-glass). But as the pain was no longer confined simply to the side, but extended over the whole abdomen, the matron suggested the substitution of a common tea-cup or tumbler by a larger vessel, viz., an ordinary chamber. The patient caught at the suggestion, and the application was as successfully effected as the advice had been charitably imparted. The poor woman submitted to this strange procedure for a short time with a patience and good will entirely equal to the novelty of her situation. But after a short time, to her intense amazement and profound horror, her whole belly began to pass into the pot. She now commenced vigorous efforts to disembarrass herself from this engulfing apparatus. To her indescribable dismay, she found herself unequal to the task. Terrified now beyond measure, she began to cry out for assistance, and friendly neighbors rushed in from all sides to the rescue. They seized the vessel by the handle and rim and exerted combined efforts. All in vain. The pot stuck, and the poor patient, exhausted by anxiety and pain, surrendered in despair.

"It was at this juncture that Dr. X—— was called. The doctor took in the situation at a glance. Turning quickly to the door, he seized the key. One blow fractured the vase, and, to the unspeakable joy of the patient and the perfect stupefaction of the attendants, the poor woman was delivered back to life.

"There was homage then to the skill of the physician, and joy over the progress of science in our day."

Microscopic Eyes.—The following paragraph appeared in a recent issue of the *New York Tribune*:—"A boy with microscopic eyes is the latest scientific wonder in England. He possesses the faculty of seeing minute objects magnified to a marvellous degree. His eyes were diseased when he was young, and he came near losing his sight, which, however, he gradually recovered. It was found, however, that the internal structure of the eye had been changed, the cornea being greatly enlarged, the crystalline lens being divided into three different parts, each part surrounded with a light-blue circle; and in the centre of each appears the iris, diminished to the size of a pin's head. The patient cannot distinguish objects at a distance, they appearing blurred and misshapen. The magnifying power of his vision is stated at 5000 diameters. A curious fact is that he will never examine water, having once discovered the vast number of infusoria contained in some which he was drinking, and the sight of which thoroughly frightened him. The lad, it should be mentioned, has a wonderful talent for drawing and coloring with great accuracy the objects which come beneath his inspection. The case is under the particular attention of Sir Charles Madden, F.R.S., and of Dr. Crowder, the eminent oculist."

M. Bazin.—*Le Mouvement Médical* of November 16 says that this gentleman, "one of the most eminent of French physicians, and who in fact has not a rival in dermatology, will leave the Hôpital St. Louis at the end of the year (1872), neither the University nor the Faculty of Medicine having ever, at any time, had the sense (*le talent*) to appropriate one whose scientific reputation is universal. The conduct of the Faculty towards M. Bazin is one of the best arguments against its official policy, and against the ministers and deans who have been in authority for the last twenty years. Without in the least sharing in the fancy some people have for the erection of busts and statues of men more or less celebrated, we think we ought to announce that a subscription is open for the rendering of a compliment of this kind to M. Bazin."

Histological Laboratory.—The same journal announces the establishment, by an order dated October 21, of a laboratory of this kind in connection with the chair of "médecine expérimentale," under the directorship of M. L. Ranvier.

Well Merited.—The *British Medical Journal* for November 23 says, "A letter, containing a check for £120, has been received by Mr. Robert Arthur Simpson, the medical student whose active exertions in behalf of

his fellow-sufferers in the Kirkdale collision were recorded in a letter published in the *Times* of October 4. Mr. Gibson, the secretary of the Caledonian Company, who writes the letter, says, 'I take the opportunity to express to you the cordial thanks of the directors for the good service so humanely rendered by you to the poor sufferers on that sad Wednesday morning of the 2d of October, at Kirtlebridge.'"

POPULATION OF THE GLOBE.—There are on the globe 1,288,000,000 souls: of whom 360,000,000 are Caucasians; 522,000,000 are Mongolians; 190,000,000 are Ethiopians; 176,000,000 are Malayans; 1,000,000 are Indo-Americans. There are 8642 languages spoken, and 1000 religions. The yearly mortality of the globe is 42,043,000 persons. This is at the rate of 115,200 per day, 4800 per hour, 80 per minute. Among 10,000 persons, one arrives at the age of 100; one in 500 attains the age of 80; one in 100 to the age of 70. In 100 persons, 95 marry.

DUST RESPIRATORS FOR FACTORY OPERATIVES.—Good service is being done in England by calling attention to the great prevalence of lung-diseases among the operatives in dust-abounding factories, such as those where cotton, iron, china, flax, lime, etc. are worked. A simple and effective respirator, consisting of a light, flexible frame-work, lined with a filter of cotton-wool, has been put into the market by Grafton & Co., of Dublin. The protection afforded by this apparatus is effectual, and it is simple and cheap.

INDIGNATION MEETING.—A Parisian telegram of December 23 mentions a demonstration made by three thousand students on behalf of the microscopist Robin, whose name was stricken off the jury-list because of his professed atheism. One would suppose that exemption from such duty would be rather a favor, no matter upon what grounds it might be based.

M. HENRY DURANT, the founder of the International Society for the succor of those wounded in war, has been overtaken by misfortune and lost all his property. A committee has been formed for soliciting funds for his relief. The member in this country is Fulton Cutting, of New York, to whom any sums of money may be sent.

SIR THOMAS BROWNE maintained that every man at his birth was nine months old; and Coleridge has said, probably in reference to this, that "the history of a man for nine months preceding his birth would probably be more interesting and contain events of greater moment than all the threescore and ten years that follow it."

DR. HENRY BOWEN DORRANCE died on the 19th ult., aged 44. We believe he never engaged in the practice of medicine.

DR. JOSEPH BROOKFIELD, of this city, died on the 17th ult., aged 84 years.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending Dec. 28, 1872, were 231; 128 adults, and 103 minors. 5 were of bodies brought from the country; making the mortality of the city 226. Among the causes of death were:

Consumption of the Lungs	25
Other Diseases of the Respiratory Organs	35
Diseases of the Circulatory Apparatus	14
Diseases of the Brain and Nervous System	35
Diseases of the Digestive Apparatus	23
Zymotic Diseases (1 from Smallpox)	16
Typhoid Fever	12
Casualties	5
Cancer	4
Suicide	1
Debility (including "Inanition" and "Marasmus")	23
Intemperance	1
Malformation	3
Still-born	9
Old Age	11

(The interments reported for the week ending Dec. 30, 1871, were 532.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER.		BAROMETER. (2 P.M.)
	Max.	Min.	
Dec. 22	16.0°	5.0°	30.50 in.
" 23	32.0	17.0	30.20 in.
" 24	16.0	10.0	30.61 in.
" 25	18.5	6.0	30.55 in.
" 26	16.0	10.0	29.80 in. (Snow.)
" 27	19.5	10.5	30.05 in.
" 28	27.0	10.0	30.41 in.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM DECEMBER 17, 1872, TO DECEMBER 23, 1872, INCLUSIVE.

BYRNE, C. C., SURGEON.—Granted leave of absence for twenty days. S. O. 243, Department of the East, Dec. 19, 1872.

MCCLELLAN, E., ASSISTANT-SURGEON.—Assigned to duty at Lebanon, Kentucky. S. O. 266, Department of the South, Dec. 14, 1872.

TILTON, H. R., ASSISTANT-SURGEON.—Assigned to duty as Post Surgeon at David's Island, N.Y. Harbor. S. O. 240, Department of the East, December 16, 1872.

HUBBARD, V. B., ASSISTANT-SURGEON.—Assigned to duty at Jackson Barracks, New Orleans, La. S. O. 193, Department of the Gulf, Dec. 10, 1872.

VICKERY, R. S., ASSISTANT-SURGEON.—Assigned to duty at Jackson Barracks, New Orleans, La. S. O. 196, Department of the Gulf, Dec. 14, 1872.

MACKIN, CHARLES, ASSISTANT-SURGEON.—Relieved from duty at Fort Macon, N.C., and assigned to duty at Columbia, S. C. S. O. 266, c. s., Department of the South.

MONROE, F. LE B., ASSISTANT-SURGEON.—Granted leave of absence for fifteen days, with permission to leave the limits of the Department. S. O. 265, Department of the South, Dec. 13, 1872.

MATTHEWS, W., ASSISTANT-SURGEON.—Assigned to temporary duty at Willett's Point, N.Y. Harbor. S. O. 243, c. s., Department of the East.

SATURDAY, JANUARY 11, 1873.

ORIGINAL COMMUNICATIONS.

A BRIEF REVIEW OF THE REPORTS ON SCARLET FEVER AND DIPHTHERIA PUBLISHED IN THE "TRANSACTIONS" OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA FOR 1871.

BY HIRAM CORSON, M.D.,
Maple Hill, Montgomery Co., Pa.

(Concluded from page 215.)

WE should have a positive, well-defined belief in regard to this *grave* condition, and select our measures of relief in accordance with it. This latter view is the one which I hold in relation to the early prostration of the vital forces in scarlet fever and in diphtheria. And now, believing that I can arouse this prostrate vital force only by acting on the nervous system, what shall I do? Of all the means of arousing the nervous system to action in the coma, or the tendency to coma, which characterizes grave cases of scarlet fever, I have never tried any equal to the *pouring of cold water* on the head. It has proved successful with me in many of the gravest cases of scarlet fever, in coma from erysipelas, and in two cases of deep stupor from poisonous doses of alcohol. I have scarcely a doubt that it would have succeeded in Dr. Suisher's cases, had he done it with a bold hand, without fear of the pale and prostrate condition of the patient, and not for a minute or two, but on and on till the brain was aroused and consciousness restored.

But let us return to Dr. Suisher's report. He says,—

"The disease subsided, and did not reappear till next February, when it occupied a large territory. It was of the anginose variety, and the throat-affection severe."

And now hear him:

"It was during the prevalence of this epidemic that I for the first time tried the use of ice internally and externally to the throat, and the result was highly satisfactory, producing effects equal to what its most sanguine advocates claim for it. Of over thirty cases, all recovered. *Three of them would not, I think, under any other treatment.* In connection with the ice I used other remedies, such as the cases required; but in several of them I attributed recovery to the ice persistently and regularly applied. In those cases of scarlatina in which the throat-affection predominates, *I believe it to be superior to any other treatment.* That it would have lessened the mortality in the other cases mentioned, I cannot believe."

And now allow me a word of explanation. Why was there not much throat-affection in the cases where the vital forces were so greatly prostrated? Because when the nervous system is affected deeply, as in shock from injury, or from poisons, or from sunstroke, local inflammations do not—nay, cannot—manifest themselves with any vigor, until the brain has been relieved. But if Dr. S. had relieved the brain from its torpor by pouring cold water upon the head, he would have seen the eruption glow on the skin, and the tonsils inflame and swell so as to demand the ice internally and externally, as in his latter cases. My heart warms towards Dr. Suisher for the advance he has already made, and the hope he has given me of better things yet to come.

Dr. L. H. Lenher, of Cumberland county, speaks of scarlet fever and diphtheria prevailing, but gives no clue to the treatment, nor percentage of deaths. In diphtheria he bleeds, and gives calomel and ipecacuanha for twenty-four or forty-eight hours, but in what quantity he does not say.

In Fayette county, Dr. Voorhees had ten cases in April and May. He used mild purgatives to regulate the bowels, veratrum viride to reduce the pulse, cold to the fauces, in the form of ice-water, or lumps of ice held in the mouth; and a saturated solution of chlorate of potash as a gargle. He has long since abandoned the use of the swab to the throat, considering its use fraught with disastrous consequences.

Dr. Sheller, of Lancaster county, "had about sixty cases of the mildest type, and only two deaths,—not quite four per cent." Treatment, "wash with warm water and soap every six hours,—chlorate of potash as a gargle." Thinks he "has been as successful with the warm water and soap as ever Dr. Corson has been with ice." Not if he lost two out of "sixty cases, nearly all of the mildest type." In my advocacy of the ice and cold-water treatment, I have special reference to the treatment of grave cases,—those cases which, under the common hot treatment, with bacon to the throat and lard smeared on the body, and caustic and chlorate of potash applied to the glands and mouth, sweep off whole families, and which physicians speak of as "cases in which no treatment is of any avail." Instead of losing two out of sixty mild cases, I would not expect to lose more out of sixty grave ones, *if seen early.*

Columbia county.—Dr. Craig had much of the disease in April, May, and June. Of his treatment, suffice it to say it was the treatment long in use,—calomel, Dover's powder, ipecac, chlorate of potash, tincture of iodine to the neck, and lard to the body. If violent, an emeto-cathartic. He sums up by saying,—

"I feel free to say that I derived more benefit from the chlorate of potash in the throat-difficulties than from any other remedy;"

and adds,—

"It is impossible to give a correct average of the mortality; but, owing to the mild form of the disease during the early part of the epidemic, I should judge that it was about eight or ten per cent. of the whole number treated."

I regret that this article is too long for insertion here. It is the old history of a trial of nearly every remedy used during the last half-century, and the results were too fatal to invite a trial of it hereafter. There must have been a dreadful mortality of the severe cases, to make eight or ten per cent. of the whole number, when the many cases were of the

mild form. How valueless the treatment must have been in the grave cases, may be readily imagined, when his most potent remedy was a solution of a few grains of chlorate of potash. I am truly sorry to criticise the doctor's treatment, but the interests of humanity demand that every vaunted treatment be examined and held up to the light without fear or favor.

Dr. Ziegler, of Lancaster county, reports forty cases of scarlet fever, and eighty-five of diphtheria; four of the former and eleven of the latter died. Treatment of scarlet fever, "mild cathartics, veratrum viride, chlorate of potash; externally, inunction with lard daily, with ice-water to allay thirst, gave the most effectual relief." Treatment for diphtheria the same, "but with ten to thirty drops of muriated tincture of iron added to the solution of chlorate of potash, every three hours." It was mainly the same treatment used by Dr. Craig, improved by the allowance of ice-water as drink, and the results were nearly the same in severe cases.

We all know that in an ordinary visitation of scarlet fever or diphtheria, not more than one-fourth of the cases would be of a grave type. And it is for these latter that our remedies should be efficient. Any nurse can manage the mild ones.

Dr. Treichler, of the same county, had, from June, 1870, to April, 1871, two hundred and forty-three cases, "in which applications were made to the false membrane with solid nitrate of silver, or with carbolic acid and glycerin. Externally, volatile liniment, unguentum cantharidis, sinapisms, turpentine, and old bacon."

In the name of science and an enlightened humanity, I protest against these dangerous external applications, which in thousands of cases have slain their victims. But let us proceed. "To allay the fever, veratrum viride and spirits of nitre; where the disease passed to the windpipe, used emetics, calomel, inhalations of lime, counter-irritants, warm bath, in fact, almost everything, without avail."

Is it not strange that in two hundred and forty-three cases, when nothing was of avail in twenty cases, some other treatment was not tried? Instead of the now rejected caustic to the throat, why did he not try ice, or ice-water, or ice-cream freely, and externally, instead of the useless bacon and the dangerous irritants and vesicatories, iced water or ice to the neck continuously, at the same time sponging the body with tepid, cool, or cold water, as the case might demand, instead of smearing it with lard? Those remedies have been found efficient hundreds of times in the gravest cases, and might at least have been tried, in those cases where the old remedies had, as he declares, proved of no avail.

Luzerne county was visited by scarlet fever "seldom evincing malignancy." In addition to well-known remedies, Dr. Crawford recommends sulphocarbolate of soda. In about thirty cases he relied almost exclusively upon it. To a child three years of age he gives from one and a half to three grains every two hours.

Mercer county.—"Scarlet fever prevailed," says Dr. Livingstone, "in the county for eighteen months past, with more malignant cases than are usual, and many *died early* in the disease." His treatment may be deduced from the following extract:

"I believe the profession satisfied on three points. First, early feeding; second, expectant plan—no medicine; third, no cathartics till the decline. No one has applied cold-water bath, or douche, or ice."

I cannot pass these delusions, harmless as they may seem to the author, without a word or two. When shall the early feeding come in, or the expectant plan show its power, in a case that suddenly begins with vomiting, in a few hours is followed by convulsions or a violently inflamed throat, and, unless saved by prompt and efficient measures, would be a corpse in less than forty-eight hours? Talk of early feeding, and expectant plan, when your child is struggling for life and demands instant relief! He who has seen a severe case of scarlet fever knows how great the peril, and will at once to the rescue.

Montgomery county.—Dr. Sargent writes:

"The ice treatment of scarlet fever is still a popular remedy, and growing rapidly in favor; and while our members do not have the same success that Dr. Corson claims, they acknowledge it a potent and efficient application and remedy."

Thank you, doctor, for your words of cheer, and let me assure you that when you wield the remedy with confidence you will reach the success which Dr. C. claims.

Northampton county.—Professor Traill Green says,—

"A mild and cooling treatment produced the most beneficial results; caustics and strong acids, applied by means of a sponge, too often produce an inflammation in the surrounding parts, which in the condition of the system pass into an unhealthy form, and the disturbance to the system, caused by the use of a remedy so unpleasant to the child, adds greatly to the danger of the disease."

These are wise words, and should not be forgotten; he adds,—

"It is far easier now than formerly to conduct the treatment in a cool room with cool drinks, and, when proper, with cold applications to the body of the patient."

Another physician in the same county reports "one hundred and sixty cases, of whom fourteen died." He used the ordinary remedies, and "tried the ice around the neck in some cases, and ice-water in others, without any good effect. Ice-water was tried in one case from the beginning, and was very comfortable and soothing to the patient, but was of no avail." Which latter clause means that though the ice-water soothed and comforted the child, yet it died. And this he thinks was a trial of the ice-treatment. What could he expect from a cloth dipped in ice-water and applied around the neck once in half an hour, as it probably was? In one minute it would be warm, and would need to be changed. Indeed, nothing but the *constant application of the ice itself* would be sufficient in a severe case. He also says,—

"In one of those congestive cases where delirium was present, the cold head-douche relieved the delirium, but the child died afterwards, of croup."

What an important gain, that by the cold douche he had relieved the brain! If then he had remembered what I have so often asserted, that as soon as the brain is relieved the throat-symptoms will manifest themselves more rapidly than before, and had applied ice externally to the neck and internally to the fauces, he would have stayed the inflammation, and have prevented extension to the windpipe. He further adds that

"Dr. A. K. Seem used the cold-water douche in two cases with success, where he believed any other treatment would have failed." And Dr. Seip, of Bath, informed him that "he cured two cases with ice, that would have terminated fatally under the ordinary remedies."

Valuable testimony in favor of the cold treatment.

Philadelphia.—Dr. Benjamin Lee says,—

"Scarlet fever prevailed to a greater extent than during any year since 1861, and was of a grave character, and, what is very unusual, was quite severe during all the intense heat of summer."

There were nine hundred and fifty-six deaths, and yet he makes not the slightest allusion to the treatment, which I deeply regret, as Dr. Lee himself is well qualified to speak on the subject, and the other physicians who had those cases under care are many of them among the most eminent men of the great city so renowned for its medical colleges. To them we have a right to look for practical medical instruction.

Schuylkill county.—Dr. Thompson says,—

"It is matter of regret that the mode of treatment adopted by physicians in the county could not be reported with its attending success. The fact is a lamentable one that what is styled the *usual treatment* is manifestly of an empirical character, apparently having no influence on the disease."

He then details the symptoms of a very severe case in which "the condition of the patient was alarming and danger of suffocation appeared imminent." He resolved to try the ice-treatment, of which trial he thus speaks:

"The ice was applied internally and externally as nearly after the plan of Dr. Corson as possible. On the morning visit I found the patient breathing much more easily, but with little or no improvement in the condition of the fauces. She complained of discomfort from the water dripping on the chest, but none from the ice on the throat, and expressed no desire to discontinue its use. *The relief experienced from the first was great.* The patient afterwards informed me that she thought she would have suffocated had not relief been obtained when I first saw her. The ice was applied without intermission until the symptoms were relieved."

The chlorate of potash was used, and once the throat was touched with nitrate of silver. He adds,—

"The relief from the ice was immediate and continuous. The patient convalesced finely, with no sequelæ."

Testimony like this, even if it stood alone, ought to warrant a trial of this treatment, when, at least, the old treatment is powerless to save.

Dr. McKibbin, of the same county, has given a detailed account of treatment of an epidemic of scarlet fever not of a severe type, which seems a mixture of the old or usual practice with the cold drinks, milk, and ice-cream of the new. "In two severe cases emetics of alum three or four times daily were very useful. Externally, lard and sweet oil to the neck, with flaxseed poultice if the swelling be extensive; also inunction of lard to the body;" but he has "long since abandoned the probang with its heavy charges, as well as the solid stick of nitrate of silver," and is "very indifferent about the use of gargles." In conclusion, he says,—

"With this simple treatment my success has been so great, compared with my former efforts in the disease, as to astonish and delight me."

When we call attention to the fact that the disease was not of a severe type, we can readily account for whatever success he had. I have thus passed in review the plans of treatment, and if I have sometimes criticised with severity the treatment adopted by some of the reporters, I beg of them to attribute it to no unkind feeling, no disrespect for their abilities, but to a perfect loathing of the old, heating, gargling, poulticing, blistering, greasing, routine system, applied indiscriminately to the grave as well as to the mild cases, and which in the latter has hastened the death of thousands.

ON THE IMPORTANCE OF AFFORDING SUPPORT TO THE CORNEA IN WOUNDS, ETC.

BY CHARLES B. NANCREDE, M.D.,

Assistant-Surgeon to the Protestant Episcopal Hospital; Assistant to the Eye-Department of the Philadelphia Dispensary, etc.

I WOULD preface these remarks by stating that they are, of course, not intended for the instruction of those who devote themselves professedly to ophthalmic surgery, but for the busy general practitioner, who is frequently the first to see the traumatic cases, and who has neither the opportunity nor the time to study up the newest and best methods of treating such injuries. To such a one, a short journal article, which he can spare the time to read, may prove instructive, and it may, I trust, be the means of saving some eyes.

That I am not exaggerating the sad results caused either by want of treatment, or, still worse, by the use of unscientific measures, any one who has had even a limited experience in eye-trouble will bear me out. These evils have been very forcibly impressed upon my mind by a number of cases that I have seen lately, either under my own charge, or at some one of the several eye-clinics with which I am connected. For instance, I have seen an extensive wound of the cornea, either side of which was at least 1.5‴ in extent, which, according to the statements of the friends of the patient,—and, from the treatment which had been pursued by the family physician, they must have been correct,—had not been recog-

nized, or, if it had, had not been thought worthy of anything beyond a simple collyrium. I recall another instance, where an extensive central corneal perforation was permitted to run its course without any treatment addressed to the perforation itself, until, when seen, operative interference only availed. Again I call to mind another, where, perforation impending, proper treatment was resorted to with the most satisfactory results; but, owing to the refractoriness of the patient, the treatment was discontinued, upon which the cornea rapidly gave way.

This last case will represent the course of many others which timely interference would have saved from the evils of perforation.

To these cases might be added many more; but enough has been said to show the importance of what I am urging,—a correct method of treatment. In addition to the practical ignorance of the proper means of avoiding the evils consequent upon the injuries under consideration, I am surprised to see how the subject is neglected in articles on the eye, in nearly all the recent works on general surgery.

Before indicating the proper method of treatment, let us examine nature's mode of repair in penetrating wounds or in perforating ulcers,—their results being identical. The first effect of any opening into the anterior chamber is, of course, the escape of the aqueous humor, which generally washes the iris into or against the wound. The crystalline lens, likewise, must necessarily come in contact with the cornea in every case where there is any extensive loss of aqueous, and is thus exposed to great risk of more or less loss of function from being coated with the effused lymph. From the evacuation of so much of its contents, the eyeball partially collapses, thus permitting the edges of the opening to come into contact by the flattening of the convex cornea.

Now, it may be said that this is only an evil; for the prolapsed iris, strangulated by the lips of the wound, produces by the irritation propagated inwards an increased intra-ocular tension; this tension only aggravating the prolapse. This is too true; but in another class of cases the result is far different. Thus, when the perforation is small, the iris, merely falling against the cornea, becomes coated with lymph and blocks up the opening, thus preventing the escape of the aqueous humor, and re-establishing the anterior chamber. This is what nature aims at.

In many cases the re-accumulation of the aqueous humor tears loose the iris, leaving the opening closed by the lymph only. Again, this restoration of the anterior chamber may only stretch the adhesions, leaving the pupil almost intact. A worse result is when the pupillary margin is included in the prolapse, and all access of light to the interior of the eye prevented. When the iris is not strangulated, nor irritated by exposure to the atmosphere and the contact of the lids, there is but little increased tension.

We thus see that nature endeavors to effect two things: first, to restore the anterior chamber, and thus keep the crystalline lens away from the cornea, where its capsule would become coated with lymph, causing one form of cataract; and, secondly, to prevent the admission of air, and cause the coaptation of the wound by the flattening of the cornea. The only possible means by which this can be effected is, as we have seen, by the prolapsed iris acting as a plug to stop the opening until sufficient lymph can be exuded and kept in the proper position to fill the gap. Unless this preliminary plugging takes place, the lymph will be washed away as it is exuded, and a fistula would result, as we so often see in salivary and lachrymal fistulæ.

Having seen how nature works in effecting a cure, what indications do we observe to guide *our* efforts in aiding her? Clearly, first, to afford some artificial support to take the place of the destroyed portion of cornea. Secondly, to decrease the intra-ocular tension, the tendency of which is to increase the prolapsus, and, by keeping the edges of the orifice apart, to prevent union from taking place. Thirdly, to keep the edges of the opening as nearly in contact as is possible.

I need only refer to the results of treatment to prove the importance of fulfilling the first indication. This indication likewise obtains as a prophylactic measure when perforation is imminent. The necessity of acting upon the second indication will readily be seen by observing the effects of straining in hernia, which aggravates the protrusion by producing increased abdominal tension. The value of the third needs no explanation, as it is a cardinal point in all surgery to coaptate wounds.

How these indications shall best be fulfilled it will now be my effort to explain. Again let us look to nature as our best instructor in this as in so many other instances. In all injuries of the cornea, more or less photophobia exists, causing a violent spasm of the orbicular muscle, and thus pressing the lids firmly against the ball. This may seem, at first sight, only an effort to exclude the light which irritates the retina, rendered hyperæsthetic by the reflected irritation of the ciliary nerves; but I think we are all too apt to take a superficial view of nature's action in disease, and thus to overlook her efforts to limit injury, from which we may often deduce valuable therapeutic indications. To me this spasm of the lids seems also an effort to afford a support to take the place of the destroyed portion of cornea, and without which the protrusion of the iris would occur with much more facility than it does. This is not the explanation of photophobia in all cases of disease where it exists, but I think that it obtains here. Still, nature's effort does not suffice; for the lids are yielding, only restraining in part the protrusion: so that we must supplement her by the use of the pressure-bandage.

When there is much discharge, we should first place a piece of linen, slightly greased, over the closed lids, as otherwise there will be difficulty in removing the dressing. Generally, we may omit this. The best material for the compress is fine charpie, or raw cotton when that cannot be obtained; for the bandage, a flannel roller, one and a half inches wide, and about three and a half yards in length, although an ordinary cotton one will do. The orbit must first be carefully packed with charpie, especially in the

hollows at the inner side of the eyeball, and beneath the supra-orbital ridge, until the padding is nearly at the same level as in the centre. The pressure should be quite uniform, and so exerted as to gently stretch the lids laterally, thus rendering the eye fixed. The bandage should then be applied in one of two ways. We may place the initial end of the roller midway between the jaw and the ear of the affected side, carry it obliquely over the compress to the back of the head, and thence to the starting-point, making gentle pressure; take a second turn, ascending more vertically, exerting firm compression, and, finally, use a third, not drawn too tightly, ending, if we see fit, with a circular around the temples to secure the whole. This is according to Von Graefe's directions. Another bandage, and the easiest one to apply, is as follows: Make a circular turn around the temples to secure the end, then descend obliquely across the back of the head beneath the ear of the affected side, thence across the cheek to the eye, making gentle pressure upon the compress, until the forehead is reached, when a reverse should be made. A circular turn should now be taken to secure the oblique one, and the previous turns repeated till two or more have been made over the compress. Care should be taken not to draw the circular turns too tightly, as doing so will increase the pressure of the oblique ones. Of course, in the case of the left eye, we must make the circular turns from left to right, so as to bring the obliques under the left ear, and *vice versâ* for the right eye. By this bandage, the first and third indications are fulfilled; for it affords an artificial support to take the place of the injured portion of cornea, and it also coaptates the edges of the orifice. In atropine we find the means of fulfilling the second; for it decidedly lessens the intra-ocular tension. Besides this, it exerts a powerful sedative effect upon the inflammation, and, by dilating the pupil, drags the iris away from the cornea. The strength of the solution used should be from gr. j to grs. ijss, aquæ f℥j, carefully instilled into the eye, upon the average, three times daily, care being taken to let none enter the mouth or nose. For infants and young children, a still weaker solution than either named above had better be tried at first, to ascertain the susceptibility of the patient, since I have known intense flushing of the whole surface, dizziness, etc., from the use of the strong solutions.

By the use of these two simple measures I have seen the most extensive wounds and perforating ulcers with large hernial protrusions heal, leaving, comparatively speaking, no deformity. For instance, the triangular flap-wound of the cornea, before referred to, although gaping and irregular when first seen, healed with hardly any perceptible alteration of the corneal curvature, and with no serious inflammatory consequences. In another case, not before cited, where there was a rupture at the sclero-corneal junction, extending into the sclerotic, of about 4‴ in extent, after the removal of a small portion of prolapsed iris the wound healed, so that had it not been for the different color of the cicatrix the scar would not have been noticed. I have likewise seen this treatment rapidly reduce extensive prolapse of the iris occurring as a sequel of gonorrhœal ophthalmia. What I would call attention to in this last case is, that the bandage was used soon after the sloughing had taken place, and before all the chemosis of the conjunctiva had passed away.

I think that many practitioners would have hesitated to increase the pressure on the sloughing cornea, since, in some forms of ulceration, dividing the external canthus to lessen the pressure has been recommended; but the sequel proved that I was right, since sufficient clear cornea was saved to have permitted an artificial pupil to be formed had the patient desired it. Of course, I do not maintain that all wounds and perforations will result as successfully as in the cases cited, for they have been chosen to show what is sometimes effected; but I do say that many a case of staphyloma corneæ necessitating removal of the eye, and many of the extensive central opacities with destruction of the pupillary opening, would have been avoided or lessened by the timely use of the treatment detailed above. As a prophylactic measure it is invaluable, by preventing perforation in ulcerations of the cornea, also when this *has* taken place, and in wounds, in preventing the protrusion of the iris. Wounds of the cornea are not uncommon; for almost every general practitioner sees them occasionally, and perforations are still more frequent, although often unobserved. It is not very unusual to see the cornea give way in phlyctenular ophthalmia, one of our commonest forms of eye-trouble, and is *the* sequel of gonorrhœal ophthalmia and ophthalmia neonatorum, both of which latter every physician will be called upon to treat.

In conclusion, I would urge most strongly the importance of really *seeing* the cornea in all the "sore eyes" of children where there is much photophobia, as there is then, probably, some corneal affection; and, if perforation has taken place or threatens, the use of the treatment recommended in this paper.

RUPTURE OF THE BICEPS FLEXOR CUBITI.

BY SAMUEL ASHHURST, M.D.,

of Philadelphia.

THE following case possessed considerable interest for me at the time of its occurrence, and from its rarity seems worthy of going upon record.

I. S., aged 35 years, was admitted into the Episcopal Hospital, Philadelphia, July 26, 1871, suffering from a scalp-wound. He could give no very clear account of the manner in which he had been injured, merely stating that he was thrown from his wagon while driving, but did not think he had been run over. The scalp-wound was dressed, and he was put to bed. The next morning (July 27) he complained of much soreness in his left arm, when, upon examination, a rupture of the belly of the biceps was at once apparent. On the anterior aspect of the arm there was a depression an inch and a half wide, into which the skin and subcutaneous tissues could be pressed to the depth of half

an inch, and the ends of the torn muscle could be felt as thick lumps. Handling the arm caused great pain. Flexion of the elbow could be performed partially, with difficulty and suffering. There was hardly any evidence of injury to the neighboring skin, further than slight ecchymosis, from which fact it seemed most likely that the rupture resulted from sudden and forcible muscular contraction rather than from the application of a crushing force, as at first sight supposed. Compresses were placed over the separated ends of the muscle, which were brought together by figure-of-eight turns of a bandage enclosing the whole extremity, and the limb placed in a sling.

On August 4 the bandage was removed, and, although a slight indentation in the muscular substance was apparent, the patient was able to move the elbow freely and without pain. On August 7 all tenderness had disappeared, and, the scalp-wound having united, he was discharged.

Samuel Cooper is the only one among the older English surgeons who refers to ruptured muscles, and he merely treats of rupture of the tendo Achillis. Palmer * says that rupture of the triceps extensor cubiti sometimes occurs; but he does not mention the biceps, though the object of his remark is to correct the statement made by Mr. Hunter, that the tendo Achillis is the only one liable to the injury under consideration. Druitt says that rupture of the biceps occurs, but gives no case; and Erichsen, treating of ruptured muscles in general, does not mention the biceps. Mr. South † reports a case which occurred in his own practice, in which a tear of the biceps took place near its lower tendon from contraction of its own fibres; but, having failed to take notes of the case at the time, he does not give many particulars. Dr. J. Mason Warren, in his "Surgical Observations," relates three cases in which the quadriceps extensor femoris was either partially or entirely torn near its tendon of insertion; but a life of active and extended practice, of which his book is the record, apparently failed to furnish such a case as I record above. Mr. Tatum ‡ gives a pretty full account of torn muscles and the treatment proper to adopt in such rare accidents; but among the cases cited by him there is none of ruptured biceps.

Boyer § says that most authors speak of muscular ruptures as possible, without giving any cases, and that we must therefore regard the accident as very rare. He gives two cases himself, neither of which, however, was of the biceps. Vidal ‖ speaks at some length of muscular rupture, but does not refer to the biceps.

In fact, the literature of the subject is extremely meagre, one or two cases being all that any one systematic treatise furnishes. M. Reydellet ¶ gives the largest number of cases I have found together; but of the eight cases quoted by him from various sources, in none was the biceps the injured muscle. A paper by J. Sédillot upon ruptured muscles is quoted by Gross, Erichsen, Tatum, and the French surgeons generally, but I have been unable to find the original article. In the *Journal Général* for July, 1817, Sédillot gives an abstract of his memoir, with Baron Percy's report upon it to the Academy; but, as no cases are given, I cannot say whether an instance of ruptured biceps was among those collected by him.

My case did not present all the symptoms enumerated by authors, the ecchymosis having been less and the recovery more rapid than I should have expected by the descriptions given. That the accident is a rare one is sufficiently proved by the fact that the solitary case I have been able to find, after a somewhat extended search, is the one quoted by South from memory. While rupture of other muscles may be serious, as in the case of ruptured psoas recorded by Boyer, which terminated in death, such an injury as I report is apparently as unimportant as it is rare, and can only be regarded in the light of a surgical curiosity.

1423 Walnut Street, November 29, 1872.

* Works of John Hunter, vol. i. p. 436.
† Chelius, System of Surgery, vol. i. p. 543.
‡ A System of Surgery,—Holmes, vol. iii. p. 523.
§ Traité des Maladies Chirurg., Tome onzième, p. 86.
‖ Path. Externe, Tome deuxième, p. 735.
¶ Dictionnaire des Sciences Médicales, article Muscle.

FRACTURE OF VAULT AND BASE OF SKULL.

BY J. H. T. KING, M.D.,
Captain and Assistant-Surgeon, U.S.A.

THIS case may perhaps be worthy of record, as an example of fracture of the vault and base of the skull, without the usual symptoms of such injury.

At reveille on the morning of November 18, 1872, Private James S———, Troop F, Third U.S. Cavalry, was discovered in bed in a supposed state of intoxication, and taken to the guard-house.

At 3 P.M., being still insensible, he was conveyed to the post-hospital.

Upon examination, the following phenomena were observed.

The patient was lying perfectly comatose; integument cool, pulse slow and labored, optic nerves paralyzed, right pupil dilated, left contracted, breathing slow and deep, accompanied by that peculiar whiff at the corners of the mouth, symptomatic of compression of the brain. No odor of alcohol distinguishable.

Head carefully examined; no wound or depression whatever detected. Scalp altogether uninjured; no oozing of blood or cerebro-spinal fluid from either mouth, ears, or nose; no escape of blood into cellular tissue of orbit. A slight contusion on dorsal surface of left hand was the only one found anywhere.

All the information that could be obtained regarding the case was that this soldier, with several others, had been engaged the previous evening in a drunken fight with some civilians, at one of the wretched liquor-saloons beyond the limits of the garrison.

3 P.M.—Ordered hair to be cut short and ice applied over the head. ℞ Hydrargyri chloridi, gr. x, at once; sinapisms along the spine, hot bottles to feet, and an enema of castor oil and turpentine at once administered.

5 P.M.—Gradually becoming worse; ten grains of calomel again placed on tongue, and enema repeated.

A catheter was passed and about half a pint of normal urine drawn off.

8 P.M.—A few galvanic shocks through spine and diaphragm failed to rouse the patient in the least.

Nov. 19, 1872.—Died at 1.15 A.M.

Autopsy, nine hours after death. A well-developed, healthy subject. Rigor mortis commencing. No external marks of violence, except a slight contusion of left carpus.

On removing the brain-coverings, a large, hard clot of extravasated blood was found between the dura mater and the right parietal eminence. Weight of clot 4⅔ ounces, circular in form, and 3¾ inches in diameter. The vault of the cranium was ascertained to be fractured at this point, immediately over the clot, through its whole thickness of bone, yet the latter retained its proper level, being driven neither outwards nor inwards; the fracture was of that character usually described as a fissure, involving various bones, the principal break running perpendicularly downwards through the mastoid portion of temporal bone, to mastoid process; it also passed horizontally inwards, fracturing petrous portion of right temporal bone, transversely, at the eminence of the superior semicircular canal. This fissure crossed the grooves for posterior branches of the middle meningeal artery, and had torn these vessels, thus giving rise to extensive hemorrhage, and forming the clot.

The dura mater was much congested throughout.

Weight of encephalon 52½ ounces. Brain-membranes very vascular; no laceration of their substance.

Externally, corresponding to the fracture of right parietal bone, there was slight ecchymosis of sub-integumentary tissues of scalp, but no tumefaction or other pathognomonic sign of such a serious lesion. This was visible only on the internal surface of the pericranium.

Heart, lungs, liver, and abdominal viscera normal.

The cranial bones were ascertained to be very thin: indeed, at the seat of fracture only one-eighth of an inch in thickness.

This thinness of the bones has frequently been alluded to by surgical writers in medico-legal investigations; it is obviously a matter of important consideration. In the *Medical Times and Gazette*, London, October 26, 1872, R. Eaton Power, L.R.C.P., London, makes the following observations on a case where the calvarium was in this condition, and, as his remarks seem very apropos to this subject, I venture here to repeat them:

"A very slight blow indeed on the top of the head would have killed this man, entailing, perhaps, as the case might be, a verdict of murder or homicide, whereas the amount of force exerted might be such that no one could anticipate a fatal result. Such an idiosyncrasy should have some weight with a jury, and, I think, conveys a lesson that, no matter how evident the cause of death (*post hoc, propter hoc*) from injury, still a post-mortem examination should not be neglected."

FORT MCPHERSON, NEB., Dec. 10, 1872.

THE DISINFECTION OF ROOMS.—Dr. George Derby, Professor of Hygiene in Harvard University, writes to the *Boston Medical and Surgical Journal* of December 5 as follows:

"Among aerial disinfectants chlorine and sulphurous acid are most useful, but neither of these gases can be added to the air of a room in sufficient amounts to destroy the specific poison of smallpox without making the air irrespirable. Organic impurities of all kinds attach themselves to moist surfaces, and sulphurous acid gas seizes with avidity upon everything holding moisture. To completely disinfect a room, including its carpets, furniture, and wall-paper, close the doors, windows, and chimney; put from one to two pounds of brimstone (according to the size of the room) in an iron pot, pour over it a little alcohol, set it on fire, and leave the room for four hours. This process is injurious to the colors of many fabrics, and to gilded articles, and this injury corresponds in degree with the amount of moisture present in the room.

"When disinfection by sulphur fumes is impracticable, the next best thing to do is to wet the carpet, furniture, and walls with a strong solution of carbolic acid, one part in fifty of pure acid.

"Clothing which can be washed may be disinfected by boiling in water for one hour.

"Bedding and clothing which cannot be washed may be disinfected by exposure for four hours to dry heat at a temperature of 225° to 300° Fahr. This can be done in a large 'brick oven;' but every city should have attached to its hospital for infectious diseases an oven specially arranged for the purpose."

A CASE OF VAGINAL HERNIA (*Boston Medical and Surgical Journal*, Dec. 5, 1872).—Dr. Bruyne, of Sleydinge, Belgium, reports (*Ann. et Bull. de la Soc. de Méd. de Gand*) a case of this rare form of hernia. A woman was struck on the head by a falling ladder, with sufficient force to produce temporary unconsciousness. No unusual symptom was noticed immediately after the accident, but in the course of ten days she began to experience a sensation of weight in the hypogastric region, accompanied by a bearing-down feeling in the region of the womb. A digital examination led to the discovery of a tumor of considerable magnitude, situated in the vagina. This was at first taken for a prolapsed womb, but a more careful examination showed that the tumor was not a displaced womb, nor was it caused by a prolapse of the mucous membrane of the vagina. The nature of the swelling, its resistance, the facility with which it could be replaced, and the rapidity with which it returned as soon as the hand was withdrawn, all indicated that the tumor was caused by a prolapse of the intestine into the vaginal canal. Having settled upon this diagnosis, Dr. Bruyne proceeded to reduce the hernia. For this purpose pessaries of several patterns were introduced, but without affording the desired relief. A permanent reduction was finally effected by means of the air-bag of Gariel, but to enable the patient to retain the bag it was found necessary to distend it by means of water instead of air.

MOVABLE KIDNEYS (*Med. Times and Gazette*, Sept. 21, 1872).—Dr. Jago, in 1858, reported in the same journal "two cases of supposed movable kidney." To ascertain how far his diagnosis that these movable abdominal bodies were harmless might be justified by the future, he has recently made inquiries about the patients. The first rejoined her husband in Australia several years after the above date, and it is not improbable that she is still living. The other, though still carrying the "tumor," was, a few months since, in wonderful health and spirits, and almost oblivious of the movable body whose presence she had herself detected twenty-three years ago, and which at that time caused her much mental distress.

Dr. Jago, in his recent report, relates two more cases of this anomaly. "To sum up," he says, "the four examples of movable kidney I have met with: All the patients were women, and the organ always the right. The first case was complicated by excoriated os uteri and irritability of the bladder, which was exaggerated by pushing the kidney downwards; the third with menorrhagia and leucorrhœa. There were signs, symptoms, or history which raised the question of malignant disease in the first, second, and fourth cases. The second and fourth cases were victims of hysteria."

PHILADELPHIA
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EDITORIAL.

ANOTHER STATE INSANE HOSPITAL FOR PENNSYLVANIA.

WE have before us a memorial to the Legislature of this State, prepared by a committee of the State Medical Society, and signed by them, in favor of the erection of a new public hospital for the accommodation of the insane of Erie, Crawford, Mercer, Venango, Warren, McKean, Elk, Forrest, Cameron, and Clarion counties. The names appended to this memorial—John Curwen, James Ross, J. L. Stewart, F. F. Davis, and W. Varian—are a sufficient guarantee of the soundness of the object aimed at, which has also the endorsement, by formal vote, of the Board of Public Charities.

Some of the arguments in this paper are so cogent, and the facts adduced in their support so striking, in an economic point of view, that we feel called upon to place them before our readers:

"No accurate census of the insane has ever been taken in Pennsylvania, the number in the United States census of 1870 requiring correction in some important particulars; but assuming the number there given as the actual number, there will be 3895, or a proportion of one to every nine hundred and four of the population.

"The hospital provision in Pennsylvania, including those in the different almshouses in the counties where really they receive no treatment, is 2825, leaving over one thousand entirely unprovided for. What the accommodations for the insane in the county almshouses are can readily be ascertained from the report for 1871 of the Board of Public Charities; they have no medical treatment, except in case of some intercurrent bodily disease, and no means of proper exercise and recreation, and yet many recent cases are taken to those institutions and kept there, and in the great majority of cases without any effort being made to give them the benefit of medical treatment, and as a consequence they are soon added to the already large number of chronic insane requiring to be supported by the public. . . . . .

"It is a fact established by universal experience that the majority of the insane in any given hospital are derived from the section of country more immediately adjacent to that hospital, so that it may be regarded almost as an axiom, that a hospital should be placed as near as may be, convenience of access and supplies considered, to the centre of population of the district it is designed to accommodate. In the ten counties named above, the population, by the last United States census, was 303,731, which in the proportion stated above of one to every nine hundred and four of the population will give 336 insane now in the district to be provided for.

"But it has also been clearly established, by careful calculations of the admissions in existing institutions, that one in 1690 of the population becomes insane in each and every year, so that in the same population there will be within a fraction of 180 who will become insane in that district in each year, and who will need medical care and treatment. If that number have the requisite hygienic and medical treatment in the earliest stages of the disease, 144 will in all probability be restored, while 36 will remain insane or die. . . . . .

"Every person becoming insane deducts so much from the producing power of the community, and is to that extent an incumbrance or mortgage on the property and income of the Commonwealth, or some of its parts, collectively or individually, to the extent of the cost of his or her support so long as the insanity shall continue. The individual's estate pays, if it can; but, if not, the public must, for the body politic is the bondsman for every one in sickness and poverty to pay what he cannot. . . . . .

"The cost of keeping an insane person at home, in a poor-house or a jail, is not less than three dollars a week on the average, and this must be multiplied by as many weeks as the insanity shall continue. The average duration of life of an insane person, not cured, attacked between twenty and thirty, is 21.31 years; attacked between thirty and forty, is 20.64 years; attacked between forty and fifty, is 17.65 years: that is, an insane person, when taken near twenty to thirty years old, will, if not restored, live, on an average, 1118 weeks, and will cost $3354 for his support. Those from thirty to forty when taken, will live 1073 weeks, and cost $3219; and those who are from forty to fifty when taken, will live 717 weeks, and cost $2751.

"These are sums which the people must pay; they are debts incurred the moment the man becomes in-

sane, and are a mortgage on the public property until these patients are restored. This, however, is not all the cost of insanity neglected and uncured; the Commonwealth loses all the services of these men, all that they would have earned during a sane life if they were restored. The probable longevity or average time sane men will live after twenty to thirty years is 39.12 years; after thirty to forty, 32.76 years; and after forty to fifty it is 26.06 years. Then the public must not only pay the cost of supporting an uncured insane person, when between twenty to thirty years, for 1118 weeks, but lose his earnings for 2034 weeks. The earnings, of course, will vary with person, capacity, position, and circumstances. . . . . .

"Let us next consider the cost of restoration. For those whose disease was less than one year before admission, the period of restoration has been found, on calculation of returns, to have been somewhat over five months. But if taken earlier and treated as promptly as fever, pneumonia, etc., the time required for cure is much less. The cost of this restoration, even including interest on the hospital and all other expenses in our State institutions, will not exceed five dollars a week; that is, about $130 for each insane person restored. If taken early, eighty per cent. at least can be restored, and twenty per cent. will either die or remain insane for life.

"The recent cases of insanity are always more expensive to take care of, from the greater attention required, and their disposition to destroy clothing, furniture, and fixtures. The cost of the curative experiment must include both that paid for those who are curable, and for the attempt to restore the incurable, during an average period required to determine the question of their curability,—say two years,—or for such as are restored to power, $260.

"It must, however, be remembered that this estimate of the cost allows the whole expense of the hospital to be five dollars a week for each patient. In calculating the cost of a cure, we should only include the increased expense of support for this purpose over and above what must necessarily otherwise have been incurred. Whether they cure or attempt to cure or not, the public must pay three dollars a week for the patient's support, and the curative process costs only two dollars a week in addition, and only so much then should be charged to place and means of restoration. The cost then should be stated as $104 for each one restored. Taking the English calculations of the present worth of a laboring man at twenty-five, and adding the difference of earnings in this country, an annuity equal to the excess of his earnings over the cost of his support through his probable average life, thirty-nine years, can be bought for $1800. The present worth of the cost of his support, if insane, $156 a year, through his probable insane life, twenty-one years, will be $1834. Both these are lost, equal to $3634, if the man is attacked with insanity and not restored."

We believe an apology is hardly necessary for these somewhat extended extracts, when their importance is appreciated. What is true in one county or in one section of a State is true also, perhaps with some modification, in other counties or sections, or in other States. The general drift of the argument in regard to the economy of adequate public provision for the insane is certainly of equal force everywhere. It is highly important that the medical profession should be well informed on this question, and that they should be ready to use their influence to advance plans so conducive to the general good. This they can do with far more force if their arguments are based not merely upon humanitarian but upon well-established economic grounds.

THE CHILDREN'S HOUSE AT ATLANTIC CITY, N. J.

ATTENTION was called in our columns, in August last, to this excellent charity. We have received from Mr. James S. Whitney a report, drawn up by Dr. F. D. Castle, the physician in charge, of the cases treated during the summer of 1872. It appears from this that twenty-five children were inmates of the house, and one was treated elsewhere under its auspices. Of these, twenty-three derived very marked benefit, one died, one was sent to the city in a sinking condition, and one was discharged without visible improvement.

Of the cases treated, six were of anæmia, three of coxalgia, two of cholera infantum, two of ulcers, and one each of necrosis of tibia, caries of cervical vertebræ, marasmus (died), atrophy of leg, chronic diarrhœa, articular rheumatism, equino-varus, chorea, scrofulous disease of several joints, inflammation of knee, knock-knee with partial paralysis, paralysis, and disease of spine.

Dr. Castle says, "The treatment was mainly of a hygienic character: the patients were kept as much as possible in the open air; those who were able to bear it took sea-baths; others had salt-water baths in the house. Electricity was employed in those cases in which it was indicated. Iron was found useful as a tonic in many cases; and wine, cognac, opium, and various astringent and anodyne lotions were employed in those cases which called for their use."

It is in contemplation to extend, if possible, the operations of this most beneficial charity; and we heartily commend it to those of our readers who can influence contributions of money or supplies in its behalf. Donations may be sent to James S. Whitney, Esq., 1815 Vine Street.

CORRESPONDENCE.

FREY ON THE MICROSCOPE AND MICROSCOPICAL TECHNOLOGY.

To the Editor of the Philadelphia Medical Times:

I HAVE just finished reading the notice of "Frey on the Microscope" in your last number. Though often dissatisfied with the notices of books with which I am familiar, I have never before allowed myself to take public notice of them. In this instance, however, such palpable injustice has been done to a book of such deserved reputation, that, conscious that many readers will be debarred from purchasing a volume of a kind which has been inquired for by every student of medical microscopy who has come under my notice, I have felt called upon to do what I can to correct the erroneous impressions which must obtain from its perusal.

Long familiar with the volume in the original, I have many times said that if we could have the work of Frey in English we should then have the best book, which, in its fair consideration of all matters required by the beginner, would exactly answer our demands, while all other text-books, though excellent in many respects are deficient in others. Thus, the valuable work of Carpenter furnishes a very full account of the optics of the subject, and as much of the "technik" as is necessary for mounting objects of general interest, and in the department of natural history is the most complete exposition of histology available. But in the subject of medical microscopy and animal histology and pathology it is totally deficient. So with the equally valuable text-books of Beale, which, besides being somewhat unsystematic, only pretend to furnish aid to the clinical microscopist, while the subject of optics is untouched. In Frey, however, we have a sufficiently yet not too full exposition of the entire subject,—optics, "technik,"—the latter the most complete and *elementary* yet afforded us in English,—as much human histology, and nearly as much pathology as is required by the medical student and practitioner.

What I more particularly complain of in the notice are first, what may be termed "damning with faint praise," and second, including as "imperfections" and "deficiencies" what are really only omissions. Such as these are the statements with regard to instructions being couched in technical language, to the omission of any indications of the degree of amplification of histological drawings, the fact that the references are only to German instruments, the absence of any uniform standard for prices, measurements, etc., prices being given in thalers, francs, pounds, or dollars, and dimensions in millimetres, parts of a Paris line, or subdivisions of an English inch, without any attempt at reduction, and the less than scant justice done to the leading microscope dealers in Philadelphia. Again, the repetition of *four* wood-cuts in different parts of the volume is spoken of as an "ingenious and altogether economical device" to fictitiously augment a "seeming wealth of embellishment." Finally, the critic fears that "the novice who consults it as a guide in his elementary studies will often turn from its pages in disappointment and regret."

As to the indication of the degree of amplification employed, it certainly has its uses, and especially in papers containing an account of new observations, accompanied by drawings, is indispensable; but that its absence is a defect which will interfere with the utility of a text-book on the microscope no one can for a moment claim. Why a German author should be expected to make references to other than German microscopes, I cannot understand; and as to the reduction of millimetres to inches, and *vice versa*, while there is every reason that the latter should be done, I hope soon to see the day when the metric system will be that solely employed in all scientific work, and the sooner the student is familiarized with that to the exclusion of all others, the better for him and for science. Again, no one can be prouder of the Philadelphia makers and dealers than myself, but really why a professor in Zurich should take pains to make allusion to them rather than to those of any other American city, I cannot understand. I feel truly indebted to the translator for incorporating American microscopes in the price-list, and think it natural that he should indicate prices in the currency of the country in which the instruments are made; they generally have to be paid for in such currency, at any rate. Of the historical résumé of the American manufacture of lenses and stands by the translator I do not think our makers can complain. So far from the method of repeating illustrations, to the very limited extent to which it is here employed, being an "ingenious device" to augment "a seeming wealth of embellishment," it is one constantly employed by authors, and especially by Dr. Beale, greatly to the convenience of readers, who would otherwise be compelled to turn over many pages to compare a cut, when in this manner they have it on the same page with the text, and if 4 are subtracted from 343 it certainly does not so much detract from a "seeming wealth of embellishment" as to make it worthy of criticism. Moreover, the letter-press is not altered except in the case of Figs. 211 and 248, where the change is so slight as to make no practical difference. As to "technical language" which cannot be understood, I have looked in vain for it, and, so far from believing the novice will turn from its pages with "disappointment and regret," I believe he needs but to compare it with any book extant on the subject to be satisfied of its superiority as an elementary treatise.

The addition of Fenwick's method of detecting elastic tissue of the lung in sputum in cases of phthisis, and of drawings illustrating parasitic skin-diseases, would greatly add to the utility of the volume, and their absence may indeed be looked upon as defects, which should be corrected in a new edition.

Justice.

Dec. 14, 1872.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Dr. D. H. Agnew, President, in the chair.

A CONVERSATIONAL meeting was held November 27, 1872, at 8 o'clock P.M.

Dr. Dougherty, of Maryland, made the following remarks on a case which had recently come under his care:

Mr. D., aged 27 years, was taken with a violent pain and swelling in the scrotum, upon or about the 7th of October last. A few days after this, a calculus, a little smaller than an ordinary plum-seed, was extracted by means of the spoon point of a probe director from the urethra near the glans penis. The swelling of the scrotum continued to increase until the 13th of October, when he first saw him. During this time he passed urine with difficulty, but no examination of the urethra was made. On the 14th of October sloughing of the right side of the scrotum began to show itself. The sac was then opened, which discharged a small quantity of serum; this was undoubtedly urine that had escaped from a fistulous opening in the bulbous portion of the urethra. This was followed with some relief. On the morning of the 16th Dr. D. saw the patient in company with Dr. C. H. Ohr, and his attending physician, Dr. P. A. Healy. An attempt was made to pass the catheter, but the canal was found to be closed by another stone. It was then determined to remove the calculus by making an external incision, the obstruction being apparently anterior to the bulbous portion of the urethra. The patient was first placed under the influence of chloroform. An incision was made on the right side of the scrotum close to the median line, opening into the urethra upon a grooved director. A free discharge of thick, dark, very offensive pus followed the incision. After the largest stone had been extracted, the smallest was discovered and taken out. An attempt being now made to pass the catheter, still another stone was discovered impacted in the prostatic portion of the canal. It was found impossible to remove this until the index finger of the left hand was introduced, and the sac containing the stone enlarged by cutting with a sharp-pointed bistoury. This patient has convalesced very rapidly, the sloughing wound and fistulous openings being all well closed.

When he was seven years of age he suffered with total inability to void his urine for a period of forty-eight hours. His attending physician passed a catheter without discovering any stone. On this occasion the urine was ejected in a stream, as the patient expresses it, "as high as the ceiling, probably ten feet." When he was twelve or thirteen years of age, he fell astride of the stern-post of a boat, inflicting a bruise in the perineum, producing severe pain and swelling in the urethra. He could always pass his urine in a good stream. The only difference he noticed between himself and other persons was, "that it took him a little longer time, and towards the latter part of the performance the urine dribbled from him." He is a married man and the father of two children. The ejaculation of semen has always taken place without any impediment.

Dr. Washington L. Atlee emphasized the fact that, in the case mentioned by Dr. Dougherty, the man was married and the father of two children; one stone was impacted in the prostatic portion of the urethra closing up the outlet of the vesiculæ seminales, and the other two were in front of this, occupying the membranous portion. He could understand how the urine might be readily ejected through an extensible urethra by means of the muscular power of the bladder and abdominal walls, but ejaculation would be imperfect. His wife was eight months pregnant at the time of the operation, and his child was two years of age.

Dr. Benjamin Lee referred to a case, suggested by the topic of difficult micturition, which occurred in a little patient suffering from spinal caries. The child was of a strumous diathesis, if indeed she were not the subject, as he had some reason to suspect, of vaccinal syphilis. Being summoned in great haste, he found her writhing on the floor in extreme agony. The paroxysm had been induced by the attempt to pass water, and had been preceded by others equally violent. On examining the external genitals, a tumor half the size of a filbert was observed just above the meatus urinarius. Being white at one point, it was supposed to be an abscess, but it gave no sense of fluctuation, and on more careful examination proved to contain a mass of sebaceous matter of almost cretaceous hardness, as large as a pea, collected beneath the preputium clitoridis. With some little difficulty, owing to its adhesion to the inner surface of the prepuce, it was turned out with the scoop end of a grooved director, and after a few moments the child was able to urinate freely. The pressure of this concretion had evidently produced a complete occlusion of the meatus. About six months later she had a similar attack, which was relieved by the same measure. He had never seen a case reported in any treatise on children's diseases exactly similar, and was desirous to know whether any of the members had met with this condition.

Dr. H. H. Smith, whilst waiting for the hour of the special meeting, suggested that it might prove useful and interesting to hear the views of the members present in reference to a subject in which every one had felt an interest, if only from the inconvenience it had caused them by the additional daily labor of walking instead of driving to visit their patients. He thought physicians might advantageously give more attention to the diseases of the lower order of animals with benefit to the community and the relief of a part of creation on which depended so much of our comfort and pleasure. He had recently had the opportunity of inspecting many of the cases of the so-called "horse disease," and he had been much impressed by the culpable ignorance manifested by those who pretended to be skilful veterinary surgeons. From the observation of some eighty cases, Dr. Smith thought the disease was a blood disorder, dependent probably on sporules or germs floating in the atmosphere, which being inhaled produced first irritation and inflammation of the Schneiderian membrane, accompanied by serous, mucous, purulent, and at length by sanious discharge from the nostrils, followed by sympathetic irritation of the cervical lymphatic glands, then by enlarged tonsils and difficulty of swallowing, and by inflammation of the larynx and trachea, which in from fifteen to twenty-one days was liable to be followed by pneumonic or pleuritic effusion. Auscultation in bad cases showed marked hepatization of the lungs.

As the disorder progressed, the circulation showed marked symptoms of disorder, being at first languid, then febrile, then extremely depressed; death was preceded by serous infiltration of the connective tissue in various parts of the body, as well as by ecchymoses and bloody effusions beneath the skin and mucous membranes. In several instances these ecchymoses resembled those of scurvy, and were visible in the nostrils, lips, gums, and eyelids, as well as in blotches that could be felt though not seen, except as swellings or so-called "farcy buds" under the skin. Punctures in the swollen limbs gave exit to a large amount of serum tinged with bile. The bowels were generally constipated, though in two cases colliquative diarrhœa was present and proved rapidly fatal. In bad cases

the typhoid symptoms soon became marked, and prostration rapidly supervened on exercise. In many respects there seemed to be a resemblance to malignant or well-marked diphtheria in the human being.

Dr. Smith had not prescribed for any horse except his own and those of one or two friends, but had simply observed the cases in the practice of the veterinary practitioners. From this he was satisfied that the great point in the treatment was abundance of fresh air, warm clothing, with frictions, stimulation of skin, bandaging of the extremities, drachm doses of sweet spirits of nitre in water twice or three times a day, and light but highly nutritious food, as ground and scalded barley, scalded oats and bran; and when deglutition was difficult, oatmeal gruel or thick barley-water. When the pulse rose from 80 to 100 (the normal equine pulse averaging 35 to 45, and best felt in the facial artery as it passes over the lower jaw in front of the masseter muscle), the administration of stimulants, as a half-pint of whiskey in three quarts of gruel or barley-water.

Dr. Smith thought it was the duty of physicians to aid the community by diffusing sound information (when demanded) in reference to the diseases of the lower orders of animals. A medical friend of his was once enabled to save a patient a serious pecuniary loss by visiting and prescribing for a number of monkeys that were sick in a menagerie and were dying of diarrhœa and exhaustion. As they were young, teething was suspected, and on giving chloroform and lancing the gums, together with the administration of mistura cretæ, many were promptly relieved.

Dr. Atkinson said he had no confidence in the methods of treating the horse, so far as he had observed them in the recent epizoötic. He asked Dr. Smith in what doses his friend prescribed for the monkeys.

Dr. Smith said the ordinary dose of chalk mixture had been given. Much credit had been gained in the "horse disease" by homœopathic remedies, but, except as an expectant treatment in opposition to the polypharmacy of other horse practitioners, this plan had in his opinion done no good. Whilst the depression of aconite, belladonna, etc. was often injurious, arsenic in small doses, 3 to 5 grains, was a useful tonic; iron, gentian, and ginger were useful in convalescence.

Dr. L. K. Baldwin stated that he had seen one case in which there was a very offensive, black discharge from the bowels of the animal during a period of twenty-four hours before his death. Some authors on veterinary practice speak of a general inflammation of the bowels attending the later stages of the disease, giving rise to the offensive discharge spoken of.

Dr. Welch asked whether the animals had been well kept. He had heard the statement made by a gentleman from the country, that a donkey and a colt had escaped the disease while they were in the open air in the field, but when afterwards stabled they suffered.

Dr. J. R. Wells stated that, from observation of the disease among horses in his neighborhood, he was satisfied that many if not most of the cases proved fatal in consequence of the heavy dosing they received. The following prescription—viz.: ℞ Potass. nitrat. ℥iss, Sulph. ℥iss, Antimonii et Potass. tart. ℥iss; mix, to be given three times a day—was largely used by the owners of sick horses, procured by regular prescription from the veterinary surgeon, or upon the recommendation of a neighbor, who had probably gotten it from the daily papers or in some other way.

One gentleman who had lost two horses and had been giving this prescription, by direction of a doctor, as a tonic, was somewhat surprised when informed of the effect of such doses on the system.

The most successful treatment was careful usage, good feeding, and, if medicine became really necessary, a teaspoonful of powdered nitrate of potash, with from ten to fifteen drops of the tincture of aconite root, every two hours. Dr. Wells further stated in reference to this treatment, that when recommending it to the members of a horse company at the annual meeting, one farmer informed him that so successful had these remedies proved in the pleuro-pneumonia among the cows some time since, that his neighbor, a farmer with a large dairy in Merion, Montgomery county, who had lost half his stock, upon adopting it cured every case; and so confident was he of its power over the disease, that, although he still had some sick, he bought others and filled up his dairy again, and did not lose another case after that time.

Dr. Phelps stated that at the Schuylkill mines, horses that were brought out of the mines at night suffered from the disease. Those kept entirely within escaped. This protection was attributed to the explosion of gunpowder and gaseous emanations.

Dr. Agnew stated that horses confined for eight months within the mines had suffered.

Dr. W. L. Atlee said he had used his horses daily. His stable was fumigated with sulphurous acid three or four times a day. They had the disease slightly,—were late in getting it: he fed them soft feed, gave ten drops of the tincture of aconite, and one drachm of nitre three times a day, drove them moderately so as not to overheat them. He avoided wrapping up their throats with flannel or driving them with blankets, but was careful to blanket them every time he stopped

Dr. Grove said it had occurred to his mind upon several occasions, when seeing horses having anasarca following this disease, that their urine was quite likely to contain albumen, and desired to inquire if any gentleman present had ascertained whether such is the case.

Dr. Bunn said that in one case albumen was found in large amount.

Dr. Hamilton thought it was quite proper to spend a short time in giving expression to such views or modes of practice as might conduce to the alleviation of suffering and the safety of so noble and useful an animal as the horse. The prevalent ignorance in regard to the diseases and proper mode of treatment of domestic animals in general, is extreme; and it is in view of the improper and too often violent measures resorted to in many simple attacks of the recent epizoötic, as well as other diseases to which the horse is subject, and the senseless, inert practice pursued in the violent and dangerous cases, that we are well justified in the casual introduction of this subject upon the present occasion.

Rationally to treat the disease of an irrational animal is no easy task; yet precisely the contrary view is that which generally prevails even with the veterinary surgeon. If, in addition to the inherent difficulties pertaining to the cases under consideration, we call to mind the incompetency of a very large proportion of those who profess to be skilled in and practise the veterinary art, it is manifest that in attacks of a moderate kind the animal would fare best by judicious nursing and strict attention to his natural wants. In severe and dangerous diseases requiring prompt and active treatment, he believed it too often happened that the horse was lost from timidity in the adoption and delay in the employment of measures sufficiently active to meet the emergency of the case.

Dr. Madden, of Torquay, Eng., recommends, in *The Practitioner* for December, the inhalation of five-drop doses of nitrate of amyl for the relief of angina pectoris. He used it with success in his own person.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, DECEMBER 12, 1872.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. CHARLES B. NANCREDE presented a piece, three-quarters of an inch long, of a carpet-needle, which he had removed from the os calcis of a boy nine years old, who had applied at the Episcopal Hospital for treatment. The bit of needle was imbedded in almost its entire length.

There was no formation of callus, nor, indeed, any evidence whatever of inflammation or even of irritation. Dr. Nancrede thought this interesting in connection with the suggestions with regard to the treatment of ununited fracture in which the perforation of the ends of the bone with pins and points of ivory was employed with a view to excite inflammation and the consequent formation of callus.

Dr. SAMUEL ASHHURST related a case which had recently come under his observation, in which a piece of glass half an inch long by one inch wide had entered the thigh over the tuberosity of the ischium four years and nine months before he removed it below the line of Poupart's ligament, coming through the adductor magnus muscle.

Dr. JAMES TYSON presented a specimen of *abscess of the liver* after *chronic dysentery*, with *extensive ulceration of the large intestine*, and a specimen of *horse-shoe kidney*, from the same patient, a woman aged forty-eight, who was admitted to the Philadelphia Hospital, December 6, in collapse, and died two days after admission. No history was obtained.

The liver was the seat of two large abscesses; one was in the superior portion of the right lobe, and a second was near the inferior surface of the left. There was also peritonitis.

Dr. Tyson also exhibited the *smooth white kidneys*, weighing jointly twenty-two and a half ounces, from a case of so-called chronic catarrhal nephritis.

Dr. J. EWING MEARS exhibited a *scapula* which had attached to its inferior angle and part of its posterior surface a large mass of supposed calcareous formation. The bone was found in an ancient sepulchral cave in Kona, Hawaii, S. I., by Dr. J. M. Whitney (dentist), and presented by him to the Pennsylvania College of Dental Surgery.

Dr. H. ALLEN read the report of the committee to whom was referred the section of femur from a case of rheumatoid arthritis, presented to the Society by Dr. H. C. Wood.

The specimen examined comprised a transverse section of about an inch in length of the upper third of the shaft of the left femur. In the thickness of the wall of the medullary space, in the periosteal markings, it presented a normal appearance. The position for the medullary canal, however, was found occupied by an abundant cancelli, the minute character of which did not depart from the typical condition found in the osseous system in health. The committee's examination of specimens in osteology has been unsuccessful in finding any similar appearance. In the absence of evidence educed by study of the medulla, the committee would consider the specimen as instancing a variation in the form of the medullary space of the femur within the limits of health.

No medical evidence appears to have been called for on the second trial of Stokes in New York; at least none is mentioned in the newspapers.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

SEMI-MONTHLY MEETING, DEC. 17, 1872.

Reported by JAMES S. BAILEY, M D.

DR. ALBERT VAN DERVEER, PRESIDENT, in the chair.

THE President announced the death of Dr. John F. Crounse, and on motion the following were appointed a committee to prepare suitable resolutions: Drs. James S. Bailey, Joseph Lewi, and John M. Bigelow.

Dr. JOHN V. P. QUACKENBUSH read a paper on *hydrorrhœa*. Having defined the term as one applied to discharges of water occurring during the latter months of pregnancy which are not preceded or followed by uterine contractions, and which do not interfere with gestation, he proceeded to give the views which various authors entertain as to its nature.

The opinions as to the nature and seat of the *false waters* have been diverse. Boehmer supposed that they were contained between the chorion and the amnion; Mauriceau, that they came from the interior of the amnion; others, that it is an œdematous condition of the womb. Carl Braun, of Vienna, has designated two kinds of fluid accumulations: first, between the chorion and uterine walls; second, between the chorion and the amnion: to the former he has applied the term *hydrometra ascitica*.

The report of Prof. Doughty, of Augusta Medical College, Ga., was also considered. He speaks of a discharge from the vagina which appeared without cause in a patient in the fifth month of her fifth pregnancy. The discharge was abundant and unattended with pain. Rest and the recumbent position were advised, and the patient was cautioned against imprudence for fear of a miscarriage. The leakage continued, and became more copious at night when in the horizontal position than when walking about. In the seventh month of pregnancy she was seized in labor and delivered of a still-born child, the bag of waters not forming as usual, but being what is usually termed a dry labor. There proved to be present another child, and with this the labor was normal and there was a large accumulation of amniotic fluid. Dr. Quackenbush claimed from the history that this was not a case of hydrorrhœa, but a rupture of the membranes high up, which was evident from the escape of the water more freely while she was in the recumbent position. He then related a case as coming under hisown observation, which was as follows:

Mrs. B., in the seventh month of her fifth pregnancy, while walking in the street, felt a sudden gush of water, which she supposed to be from a rupture of the membranes. Upon advancing a step and on looking where she had stood, the walk was quite wet. She hastened home and sent for Dr. Quackenbush, who, upon careful examination, found no symptoms of labor. Rest was enjoined. She went on to full term, and was delivered naturally, the bag of waters forming as usual.

He stated that he had found on the fœtal surface of a placenta an accumulation of fluid resembling a cyst, due probably to a lack of transudation.

The same has been observed by Dr. James Whittaker. Dr. Quackenbush is of the opinion that this is the source of hydrorrhœa. The fluid continues to accumulate until the cyst reaches the edge of the placenta, when, from lack of support, it ruptures, and the fluid escapes between the chorion and uterine walls.

The views of Carl Braun that the fluid accumulated between the chorion and uterine walls he considered untenable, because of the lack of secreting surface or tissue, the placenta being the only source of the fluid. The *false waters* are of the same nature as the am-

niotic liquor. Specimens of perfect placentas were presented to illustrate his views.

A vote of thanks was offered to Dr. QUACKENBUSH for his instructive paper.

Dr. WILLIAM H. BAILEY moved that it be transmitted to the State Medical Society as a communication from the County Society. Carried.

Dr. SWINBURNE inquired whether liquor amnii was replaced after being discharged. Dr. QUACKENBUSH thought it impossible.

GLEANINGS FROM OUR EXCHANGES.

LOSTORFER'S SYPHILITIC CORPUSCLES.—[The great importance of this subject, and the attention which it has recently attracted, seem to warrant us in laying before our readers the following extracts from an article by Dr. F. B. Greenough, in the *Boston Medical and Surgical Journal* for Dec. 12.—ED.]

At the meeting of the Gesellschaft der Aerzte, held at Vienna on Jan. 29, 1872, Dr. Adolf Lostorfer stated that he had discovered a means by which blood coming from syphilitic persons could be distinguished from that of persons not affected with that disease. He had received from Dr. Stricker several specimens of blood, on microscopic slides, part of which were from syphilitic and part from healthy persons, and on the third, fourth, or at latest the sixth day, he had given the results of his examination, which with the exception of some cases where the specimen was in a condition to preclude any satisfactory examination, his diagnosis tallied with the record which had been kept of the sources from whence the blood came. A similar test to which he was put by Hebra resulted in the same way.

He explained his method of examination, which may be briefly described as follows: A drop of blood, obtained by a prick, was placed on a glass slide, and covered with a covering-glass. It was then placed in a receptacle, so arranged as to have the atmosphere kept moist. These preparations, examined with Hartnack's No. 10 immersion object-glass, and No. 3 ocular, for the first two days showed nothing abnormal, beyond some vibrios, bacteria, and some of the earliest germs of sarcinæ, but on the fourth or fifth day small shiny bodies appeared, on some of which was seen a small process. These increased both in size and number during the next few days, when some of them were as large as a shrivelled red corpuscle. The number of processes, also, had increased, some of which had a secondary process attached to them. On the eighth to the tenth day a vacuole could be seen forming in the centre of these bodies, which increased in size until it seemed to be bounded merely by a thin layer, shown by a double line. This seemed to be the limit of development. Various reagents were added to these preparations. When tested in this way on the first day, they shrivelled up into a dark, irregular mass, whereas, when tested later, on the sixth or eighth day, although they were somewhat affected and shrunk, the effect produced on them was markedly less.

For three months he had examined blood of non-syphilitic patients, some healthy and some affected with other diseases, and as in no case, except a syphilitic one, had he found these corpuscles, he considered himself justified in calling them syphilitic corpuscles.

He then read the records of thirteen cases, from which he drew the conclusion that the presence of these corpuscles was not limited to any period of the disease, but that they were found during all stages, from the primary lesion, before the appearance of any eruption, to the latest forms of the so-called tertiary manifestations.

Dr. Stricker gave the number of preparations of syphilitic and non-syphilitic blood that had been given to Lostorfer, amounting to fifty-nine, in all of which, with the exception of one set of twelve, the diagnosis, when given, corresponded with the facts. There were, however, some in this number from which he said that he could draw no conclusions, as the preparations were not in a condition to use. In the set of twelve above mentioned, no conclusions were arrived at; the temperature at which these examinations had been made was 12° to 15° C. In all these preparations, the non-syphilitic blood was taken from apparently healthy individuals.

At the meeting of the same society, held on February 9, Prof. Wedl briefly reviewed Lostorfer's claim, and gave the results of a series of investigations he himself had been carrying on. He (Wedl) had found corpuscles in blood corresponding to those described by Lostorfer, but was convinced that they were either small fat-cells, or the remnants of broken-down white corpuscles. He accounted for the presence of fat-cells in the specimens by supposing that when the skin was pricked, either by the pressure of the instrument or by squeezing the skin to bring out the blood, the contents of the sebaceous glands in the vicinity were emptied and mixed up with the blood. That these corpuscles were really fat-cells, was still further proved to him by the fact of his having made a fine oleaginous emulsion, and finding the exact counterpart of them in it under the microscope. He also claimed that the vacuoles mentioned by Lostorfer were the result of a process of decomposition, by which carbonate of ammonia was generated, to the action of which on the fat-cells the vacuoles must be attributed. He had not found it necessary to wait for some days before being able to see these bodies, as they could be seen immediately by simply washing away with distilled water the masses of red corpuscles which, for the first few days, fill the field and obstruct the sight.

This communication was followed by a spirited debate, in which Stricker and Lostorfer endeavored to overthrow the position taken by Wedl, *i.e.*, that the corpuscles described by Lostorfer were nothing but fat-cells.

Stricker insisted that the bodies studied by Wedl and those described by Lostorfer were not the same.

A committee, consisting of Rokitansky, Reichart, Karsten, Klob, Brücke, Billroth, Von Basch, and Auspitz, was appointed to investigate the subject.

At the meeting held February 16, this committee reported that they did not consider the subject a suitable one for an official investigation, and requested to be relieved from duty.

In the second number of the fourth year of the *Archives of Dermatology and Syphilis*, Dr. Stricker published an account of his researches on this subject.

The following deductions at which he arrived are logical and well drawn.

These bodies do not exist, at least of a size appreciable by the highest magnifying power we possess, in fresh blood. They are organic in their nature, and are slowly developed at a temperature of 10° C., and probably at a still lower degree of temperature would not develop at all. In a temperature of 20° to 25° C. their development goes on quite quickly, and at blood heat still more so. When they have reached their full growth, they remain without change for some days, even if they are brought in contact with water or moisture.

With regard to the origin of these bodies he does not attempt an explanation. They must, of course, either come from the blood itself or from the air; if the former is the case, they must either spring from small

cells or sporules so minute in size as not to be appreciable by our microscopes, or else be the result of spontaneous generation. If we assume that they come from the air, we might suppose them to be of the nature of bacteria, only we should have to assume that these bodies took a form of development hitherto unknown, when planted in certain kinds of blood.

Stricker's second series of investigations were made with the view of seeing whether these bodies were, as Lostorfer claims, only found in the blood of persons having syphilis, and his deduction on this point is unequivocally no. The fact of a syphilitic patient, in whose blood they had been found in great abundance, having had a severe attack of hæmoptysis, suggested to him the possibility of these corpuscles being in some way connected with a depressed and cachectic state of the system. The result of his researches in this direction was to find them in the blood of a patient with cancer of the stomach, in large quantities in two cases of tuberculosis, in a case of Bright's disease with a cardiac complication, and in an anæmic convalescent from smallpox.

In the *Berliner Klinische Wochenschrift* appeared an article by Dr. Köbner, of Breslau, giving the result of his investigations, and the deductions derived therefrom, which differ materially from Stricker's. Space does not permit of even an abstract of his work, but the following is his result:—he claims to have found bodies in the blood after more or less time, depending on the mode of treating the preparations as regards sealing them up air-tight or not, degree of temperature in which they were kept, etc., which correspond to the corpuscles described by Lostorfer, but he found them as well in blood of healthy and acutely sick persons as of syphilitic ones. He supposes these bodies to be what have been described by botanists and zoologists under the name of vacuoles. They are thought to be very small drops of water, less dense than the surrounding medium, and consequently refracting the light less, and enveloped by a thin wall of albuminoid matter, derived from the surrounding medium. These bodies have been the subject of a paper by Prof. Haidenhain, who calls them albumen-drops (Eiweisstropfen.)

Curious Freaks.—To the other cases of the kind on record may be added the following, recently reported to the Boston Society for Medical Improvement:

"Dr. Jackson exhibited a photograph of a collection of needles, three hundred in number, which had been removed from the body of an insane woman at the asylum in Utica, N.Y. The case was fully reported some time since in the *Journal of Insanity*. There was no history of her having introduced the needles into her body before her entrance to the hospital, and no performance of that kind was observed while she was there, but a few weeks after admission an inflammation of the breast developed, and at the place of pointing of the pus a needle was discharged, the first of the three hundred from various parts of the body, the limbs, the abdominal walls, the mammæ, etc.

"Dr. Jackson also showed a collection of needles which had a history similar to those just described. They were removed from the body of a negro woman of Nantucket, some years ago; no cause for the freak of their introduction having been assigned."

MISCELLANY.

A Remarkable Case,—A Young Man without any Liver, Stomach, and other Essentials (from the Pottstown, Pa., *Ledger*).—"A very unusual and wonderful phenomenon was found within the body of William Millaur, aged about nineteen years, son of Mr. Joseph Millaur, of Cedarville, North Coventry township, Chester county, who died on Monday morning, December 9. The deceased has been afflicted for several years with curvature of the spine, enlarged spleen and liver. Ascites, or abdominal dropsy, set in about eight months ago, as the result of the enlargement of the liver and spleen, interfering with the proper functions of the body, gradually increasing until his death.

"The case was under charge of several physicians of this vicinity, since he was first afflicted. Dr. J. Davis, who has been his attending physician for several months past, performed a post-mortem examination on Wednesday last, in the presence of several persons, and, strange to relate, after having drawn about eight gallons of dark-colored serous fluid from the abdomen, found that the liver, spleen, kidneys, stomach, and bowels were completely absorbed, without leaving any portion of them remaining,—nothing being found in the abdomen but a portion of the omentum, and the serous fluid. How long this had been the case we are unable to say, but certainly it could not have been long."

Government Medical Aid for the Families of Army Officers and Enlisted Men.—We find the following among the telegraphic news from Washington published in the *Evening Bulletin* of January 4: "Some time since, the Surgeon-General issued an order depriving the families of army officers and enlisted men in Washington of gratuitous medical attendance and medicines, heretofore furnished by the Surgeon-General and his assistants, and confining such attendance and medical supplies to officers and enlisted men personally. The officers, after considerable difficulty, succeeded in getting their families relieved from the operation of the order of the Surgeon-General, but the prohibition still continues with reference to the families of enlisted men. As these men comprise what are known as the general-service clerks of the War Department, a body whose expenses are necessarily the same, while their pay is very much less than that of civilian clerks of the lowest grade, the injustice, or unfairness, to say the least, is apparent. The physicians employed by the Surgeon-General as attending or contract-surgeons have full privilege of private practice, and, whether so intended or not, the order inures directly to their benefit, as the five hundred or more enlisted men, whose families were accustomed to their service, prefer their attendance. An effort is being made to have the order of the Surgeon-General rescinded."

Gray Hair in Fashion.—A New York fashion-writer says, "The number of our prematurely gray young women on the streets, dressed in the height of fashion, and stylish, attracts attention. The hair is not powdered or frosted, but is really gray. One would hardly credit the fact, but a fact it is, that a chemical process is resorted to to bleach the hair white. The

reign of the blonde is over, and the old term "tow-head" passes from room to room. Golden locks are at a discount. Raven tresses are vulgar, and snowy hair is the style. The highest-priced wigs are gray, and not black or auburn. Such is the tyranny of fashion that young girls with black and auburn hair are crazy to have a bleached head."

A Labor-Saving Device.—Hofrath Matzler (*Jenaisches Archiv f. Geburtsh.*, u. G. M. Redslob, Diss. de Hebræis obstetricantibus, Lips., 1835, p. 11) once encountered in a village an obstetrical chair which owed its construction to the inventive genius of a poor carpenter, who had substituted this inanimate support for the living chair, the *rôle* he always had to play himself. His wife always maintained that she was delivered easiest when seated upon his extended limbs; gradually his reputation for proficiency in this art extended through the village, and pretty soon there was not a woman in the place who would be delivered in any other way than upon his knees. He grew weary of this business in time, and devised the chair mentioned, for his relief. "Yes," he said, "I would have enough to do, if I had to let every cow in the country calve upon my lap." This narrative shows clearly enough how in Solinger's day certain persons were selected to officiate as "*Schoot-steers.*" It is highly probable also that the obstetric chair had its origin in this way.

Mr. Holmes Coote, the anatomist and surgeon, long connected with St. Bartholemew's Hospital, London, has been suffering from general paralysis for some time past, and is wholly disabled from professional life. He is, unfortunately, in very narrow circumstances. His son, as well as the son of Mr. Baker Brown, will apply for admission to the Royal Medical Benevolent College at the next election.

The Ex-Emperor of the French.—Telegraphic advices to the daily papers announce that on January 2 the ex-emperor was operated on for stone by Sir Henry Thompson, in London. It is not mentioned whether it was lithotrity or lithotomy that was performed; but the symptoms so far are reported as favorable.

Valuable Prize.—The *British Medical Journal* of December 14 says "the Riberi triennial prize of 20,000 *lire* (£800) has been awarded to Dr. Giuseppe Corradi, director of the surgical clinic at Florence, for four works on the Diseases of the Genito-Urinary Organs, three of which are as yet unpublished."

New Journal.—The same periodical mentions that a new monthly journal, under the name of *Il Galvani*, specially devoted to electro-therapeutics, is to be published at Urbino, in Italy, this year.

Appreciated Services.—*The Clinic* says that Prof. Pitha, of Vienna, recently received a fee of $50,000 on the recovery of the only son of Baron Tedesco, a millionaire of that city. The boy was twenty-three days unconscious. Pitha's assistant also received a large sum of money.

Dr. M. M. Levis, of this city, died on the 27th ult., at the advanced age of 77. He had for many years an extensive practice in the upper part of the city, where he was well known and highly esteemed. He was the father of Dr. Richard J. Levis.

A Singular Death.—A man named Heidenberg, a glazier, is said to have been snowballed to death in New York on New Year's day.

M. Pouchet, well known by his researches and writings on the subject of spontaneous generation, died in Paris early in December.

Mr. John A. Brown, the munificent donor of $300,000 to the Presbyterian Hospital of Philadelphia, died on the 31st ult., aged 85.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending Jan. 4, 1873, were 385; 237 adults, and 148 minors. 14 were of bodies brought from the country; making the mortality of the city 371. Among the causes of death were:

Consumption of the Lungs	53
Other Diseases of the Respiratory Organs	79
Diseases of the Circulatory Apparatus	24
Diseases of the Brain and Nervous System	52
Diseases of the Digestive Apparatus	21
Zymotic Diseases	18
Typhoid Fever	5
Casualties	7
Cancer	8
Suicide	1
Exposure	4
Debility (including "Inanition" and "Marasmus")	38
Still-born	20
Old Age	19

(The interments reported for the week ending Jan. 6, 1872, were 545.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

	Thermometer. Max.	Min.	Barometer. (2 P.M.)
Dec. 29, 1872	35.0°	20.0°	30.50 in.
" 30 . .	30.0	15.0	30.67 in.
" 31 . .	39.0	30.0	30.28 in.
Jan. 1, 1873	32.0	28 0	30.51 in.
" 2 . .	34.0	27.0	30.44 in.
" 3 . .	46.5	37.0	29.97 in.
" 4 . .	44.0	32.5	30.33 in.

The mean temperature of the month of December was 28.22°; that of the year 1872, 54.66°; rain-fall for the year, 51.117 inches.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM DECEMBER 24, 1872, TO DECEMBER 30, 1872, INCLUSIVE.

Phillips, H. J., Assistant-Surgeon.—Granted leave of absence for thirty days, on Surgeon's Certificate of Disability. S. O. 230, Military Division of the Pacific, Dec. 12, 1872.

Munn, C. E., Assistant-Surgeon.—Assigned to duty at Fort Adams, R.I. S. O. 245, Department of the East, Dec. 23, 1872.

SATURDAY, JANUARY 18, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON A CASE OF EXOPHTHALMIC GOITRE.

BY J. FORSYTH MEIGS, M.D.,
Attending Physician to the Pennsylvania Hospital.

Delivered October 12, 1872.

GENTLEMEN,—The patient you see before you I would not have brought here but with her own full consent. She is the subject of a rare affection, and I was anxious you should have an opportunity of seeing this example of the disease, but, as it is one which is injuriously influenced, in my opinion, by mental, or I would rather say emotional, agitations, I repeat that I should not have brought her here before this large class but with her own consent. I told her yesterday, in the ward, that her disease was a rare and a very interesting one, and that I wished the young men who were endeavoring to prepare themselves for the business of the physician might see her. "I will take you for a short time before the class," I said, "if you will go willingly, and if you will promise me not to allow yourself to be agitated. I will keep you there but a short time, and you will render the science of medicine a good service, and do yourself no harm, if you go willingly, and keep yourself calm and still." At first she thought she could not go. I said, "Think over it, and if, tomorrow, you make up your mind to go, I shall be very much obliged to you, and you will receive no harm from it."

I took this course in order to save her from the moral disturbance which would have followed any peremptory or unexpected exposure of her case before this large class.

You will please to observe the peculiar expression of the face. The complexion is pallid, not white or semi-transparent as it is sometimes in anæmia, but it is pale; she looks tired, and there is a rather fixed appearance about the muscles of the face, as though she had waited, and were still waiting, for some hope deferred. She has learned to wait for a recovery. Her eyeballs protrude much more than usual; they look large, and are covered by the eyelids to a smaller extent than they are in the healthy face. Her eyes look, as I once heard a very clever lawyer of this city say of his own child, as though they were looking over into next week. She can close the eyelids over the balls when she tries, as you may see now, when I ask her to shut her eyes, but it seems to require more effort than is quite natural. In some of these cases, such is the protrusion of the eyeballs that the patient cannot quite close the lids, and thus the eye sometimes suffers from exposure to the air and dust.

When I uncover the neck, you see that she has a goitrous enlargement of the thyroid gland. This condition affects the right half of the gland more than the left, and yet the enlargement is considerably less than it was two months ago, when she entered the hospital.

Observe the action of the heart. It is beating 132 times in the minute. Its impulse is extended over a larger space than natural, and it has a peculiar, rapid, sudden, *staccato* beat. The apex-beat is below and on a line with the nipple, and therefore is carried an inch farther to the left, and somewhat lower, than it ought to be. On auscultation the two sounds are distinct, clearer and louder than usual, and there is a soft blowing systolic murmur heard in the second left intercostal space, at the point where the pulmonary artery approaches closely to the walls of the chest. This is a non-organic or anæmic murmur. I heard it yesterday in the ward, with Cammann's stethoscope, and when the heart was more quiet and acting less frequently than now, distinctly.

You can see that the carotids are beating with more force and over a larger space than usual, and when I apply a finger on one side of the enlarged gland, and the thumb on the other, over the inferior thyroid arteries, I feel their pulsations very forcibly, and I find that every diastole of these arteries is attended by a thrill or purring tremor,—the *frémissement cataire* of the French. The thrill is very distinct and strong, and when the stethoscope is placed over these vessels there is a loud rushing murmur with every contraction of the heart.

Protruding eyeballs, enlarged thyroid gland, rapid, quick, and throbbing heart, unusual pulsation of the carotids, enlarged and thrilling inferior thyroid arteries, anæmia, general debility, an indescribable feeling of general nervousness or distress,—these are the prominent features of the case; and this group of morbid phenomena constitute the disease called Basedow's or Graves's disease, exophthalmos, or exophthalmic goitre; and thus the diagnosis is made.

I will now send the patient away, as I do not care to expose her to the excitement of this scene any longer than is really necessary, and I will read you the notes of the case:

Mary McC., æt. 25, single, and by occupation a laundress, was admitted August 10, 1872.

Her general health has always been excellent, but for some time she has been working very hard. For six months previous to the first appearance of her malady she suffered frequently from severe headaches, but she had no mental disturbance of any kind.

In the spring of 1871 her friends observed a sudden protrusion of the eyeballs, and soon after she noticed a burning and smarting sensation in her eyes, and that her heart beat more violently than usual. She feels confident that when the protrusion of the eyes first appeared there was no enlargement of the thyroid gland. The goitre did not show itself until October, 1871.

On admission, the appearance presented by the patient was very characteristic of the disease from which she suffered. The eyeballs protruded greatly; the thyroid gland was large and pulsated visibly, and the action of the heart was frequent and violent. On placing the hand over the goitre, a marked thrill was felt in the inferior thyroid arteries. A soft murmur was heard at the

pulmonic orifice, but no other abnormal cardiac sound was detected.

There was no excessive flushing of the face, and her general condition was good. She is more readily fatigued than formerly, but never feels giddy, and sleeps well. Her memory is good, and her mental condition unchanged.

She was placed in bed, with directions to remain there, and given digitaline gr. $\frac{1}{60}$ three times a day, with a pill consisting of quiniæ sulph. gr. j, pil. ferri carb. gr. ij, ext. belladonnæ gr. $\frac{1}{12}$, three times a day. On August 19, her condition being unchanged, she was ordered Niemeyer's pill: ext. opii gr. $\frac{1}{8}$, digitalis gr. ss., sulph. quiniæ gr. j., t. d., and the other medicine stopped.

August 28.—Goitre seems smaller; pulse 96.

Sept. 2.—Eyes more prominent, and pulse 120 per minute, full and bounding. There is nothing to account for this change in her condition. She has had no worry or excitement, and she denies having been out of bed. Ordered a belladonna plaster over præcordia, and the compound gentian mixture three times a day.

Sept. 5.—Pulse 114.

After this the pulse gradually diminished in frequency until Sept. 15, when it had fallen to 72 per minute. The eyes protruded less, and the thyroid was much smaller.

Oct. 11.—Condition very much the same as when last note was made.

Now, gentlemen, the pathology of this disorder is not clearly understood. That it is usually connected with anæmia is true; but that anæmia is the only disorder I cannot believe, since I see so many worse anæmias without any such developments as you see here.

The most reasonable scientific explanation of these symptoms that I know of is the one which assumes that there is some loss of power in the controlling influence of the vaso-motor nerves, which allows the heart to act with unusual force and frequency, and which permits the arteries of the neck to undergo, for the time being, a larger diastole than is their law in the healthy state. Niemeyer supposes that there is a sub-paralytic condition of the vessels of the muscles of the heart. I have seen in my private practice four very severe cases of this disease, one of which proved eventually fatal, in all of which the patients (women) had undergone great agitation of the mind, or, I had better say, of the emotions. One had been dreadfully hysterical in early life from a love-affair. Her attachment to a young gentleman was opposed by her parents, and she was very ill with a long train of hysteric phenomena in consequence. Finally their consent to her marriage was obtained, and she recovered, but the shock left her nervous and unsettled, and, after the birth of a second child, she had an attack of this disease, with all the phenomena above described, which lasted nine months, during which she almost died daily,—I mean in her own imagination,—but finally, under iron, digitalis, opium, nutritious food, prolonged rest, and correct moral management, including assurances of final recovery, she got entirely well.

Another case was that of a young married woman with two children, whose husband was not successful in business, and who, being obliged to live in a state of irritating dependence on some of his relations, became unhappy, unsettled, despondent. Her heart began to palpitate, its action became frequent, and she finally developed this disease. She left the city after a time, improved temporarily, then got worse, and died, after three years, of dilated heart.

A third case occurred in a young woman who was most unhappily married. Her husband proved a rascal; had to flee the city. After several years of anxious doubt and suspense, attended with many psychological irritations, she obtained a divorce. I believe she formed another attachment, and had a severe and well-marked attack of this disease, of which she finally recovered, to be attacked a year later with diabetes mellitus, of which she died.

The fourth case was that of a widow, forty years of age. In her early married life her husband had been in a prosperous business; she had four children, and was happy, contented, and in excellent health. Her husband died of consumption, and left her with a very moderate, indeed an insufficient, income. She had to bring up her family on this small income; and then one of her children gave her a great deal of anxiety, and, after several years of these carking cares and this moral pressure, she developed this disease. She was attacked in October, 1868, and soon had all the signs you have seen in the patient I showed you. I kept her for eight months on her bed, and in June, 1869, sent her to the country. She was then much better, but not well. In July of 1869 she went to the seashore, took too much exercise, and became worse again. In September, 1869, she returned to Philadelphia, and I again ordered her to bed. She improved very much, and in December of that year was able to be up and about the house without injury. She continued slowly to improve, and in November, 1870, went to Richmond, Virginia, where she remained for six months, returning to this city in May, 1871, in very fair health. She passed the summer of 1871 at Media, near this city, where she was very well. Since then she has been well, except that she finds that her heart beats too much when she is fatigued or worried. I saw her a few days ago, weighing 160 pounds, a fine, handsome, healthy-looking woman. The heart is quiet, and exhibits no murmur whatever; the carotids beat quietly, the inferior thyroids have ceased to pulsate too strongly or to thrill, and the thyroid gland has returned to its natural size. She told me that her eyes would still project a little when any worry has occurred to make her heart beat too much. She took digitaline all the while she was under treatment, with a pill of belladonna, quinia, and iron; her diet was nutritious and digestible, and everything was done to keep up hope and cheerfulness. I told her all through that she ought to get well, and she has got well.

I have seen some four other cases, three of which were in this hospital, and one about which I was consulted in private practice. One of the cases occurring in this house died; the others I lost sight of.

I have tried to discover some moral or emotional cause in the young woman you have just seen, but she denies the existence of any worry or fret. Whether

she speaks candidly I do not know. We cannot get at the whole truth in a hospital as we can in private practice, where we know the whole family history.

I must say that I cannot but think that, in the four cases I have rapidly detailed to you, the psychological condition had something to do with the disease. If so, how do worry and moral agitations act to cause this curious disease? If you will look into Claude Bernard's charming work, "Leçons sur les Propriétés des Tissus Vivants" (Paris, 1866), in the last chapter—that on the physiology of the heart and its relations with the brain—you will find some curious facts and explanations which I think bear upon these cases. At all events, his thoughts and descriptions appear to me to give some clue to the manner in which my patients may have had their circulation disturbed by the state of psychological unrest in which they had so long lived.

Bernard remarks that, for the physiologist, the heart is the central organ of the circulation, and for that reason an organ essential to life. But the word heart, he says, has passed into the language also of the poet, the romance-writer, and the man of the world, with other meanings. The heart, for these, is no longer a living motor, driving the blood into all parts of our body; it is also the seat and emblem of the noblest and purest sentiments of the soul.

He shows that the heart acts by a power of its own, and that its connections with the brain through the pneumogastrics are but to place it in proper relation with that great nerve-centre. He asserts that, so long as the nerves of the heart are not excited, the organ beats and preserves its natural functions, but that when its nerves are excited, naturally or artificially, it becomes relaxed or falls into a state of repose. When a galvanic current is applied to these cardiac nerves, the effect produced depends upon the strength of the current. When powerful, the heart ceases to beat; when more gentle, the action of the organ is for the moment arrested or impeded, to be followed soon by more rapid and energetic contractions.

It is impossible for me to give you all or nearly all of his statements and explanations, for the paper is quite a long one, but it leads to the conclusion that the common language of life is founded on a true physiological foundation. When one says that love makes the heart beat, or that one loves with all his heart, the language is not merely a poetic fervor, it is a physiological reality. "When a woman," he says, "hears some tender words which arouse in her a soft emotion, the heart feels the impulse instantly, before either reason or reflection. The sentiment begins to show itself by a slight arrest of the heart, imperceptible to all but the physiologist; the heart, pricked by the nervous impression, reacts in palpitations which make it bound and beat more strongly in the chest, and drive the blood strongly to the brain, whence come the heightened color of the face and the expression indicative of the happiness experienced." When it is said that the heart is broken by grief, substantive phenomena have occurred in the action of the heart. Has the painful impression been too sudden, the heart has been arrested; blood no longer reaches the brain, and syncope or nervous crises are the result. There is good reason, therefore, that tragic events should be communicated to those who have to meet them only with care and management. When it is said that the heart is full, after we have suffered long from grief or other painful emotions, this also answers to certain peculiar physiological conditions of the organ. Long-continued saddening emotions become incapable of arresting the action of the heart, fatigue and weary it, retard its pulsations, prolong its diastole, and cause a feeling of fulness and constriction in the præcordial region.

It is to this latter condition that I wish particularly to call your attention. May it not be that, in some of the cases I have cited to you, in which certainly the disease we are studying followed upon prolonged anxieties, the wear and tear of grief, or the pressure of disappointment, we ought to ascribe the disorder of the heart's action, which at last became, by habit, a second and an unsound nature, to these moral causes? And may we not ascribe some of the phenomena of hysteria to the same chain of causes, and do you not see how vitally important it must be that we should study the moral management of such cases more carefully than we are in the habit of doing?

After having seen several cases of the disease, and having read and thought much about it, I am prepared to recommend to you the treatment which is being pursued in the case you have just seen, and which proved successful in the two last cases I have had in private practice.

The special points in this treatment are, the use of abundant quantities of wholesome, nutritious food, prolonged horizontal rest of the body, the endeavor to promote, by all possible means, a cheerful condition of the mind, and the use of iron in some shape, belladonna in small doses, and digitalis. In some cases, arsenic, as a blood-tonic, and bromide of potassium or sodium, in moderate doses, to allay general nervousness, are of great use.

And first, as to the diet. This must depend a good deal on the habits of the patients, and their own experience through life as to what may suit them specially.

The great object to be kept in view is the supply to the body of the amount of food necessary to secure its due growth and maintain its strength. If the patient takes only a half, or a fourth, or an eighth of the amount of food issued to an ordinary soldier, or sailor, or laborer, it is plain that she is taking too little, and it is the business of the doctor to insist upon more. Sometimes there is diarrhœa, at other times constipation, in these cases. Of course, the food must be regulated so as to suit either of these conditions which may exist.

Next, as to rest of the body. I believe the best thing to be done in this direction is to keep the patient as much a fixture on the bed or sofa as possible. In the two last cases I have had in private practice, I carried out this rule so rigidly in one that for seven long months the patient rarely left the bed. On a few occasions she sat up in an easy-chair for a short time; but, as each of these efforts

was followed by increased palpitation, greater frequency of the heart's action, and more severe general distress, the patient came into my way of thinking, and I had very little further trouble in enforcing the law of rest. In the other, rest, almost continuously horizontal, was kept up for several months; and both these cases recovered. Sometimes the rest cannot be enforced so persistently; and, when we cannot get the whole loaf, we must e'en be content with the half.

The mind should be kept as tranquil as possible. Hope must be infused into the patient's mind by cheering encouragement, by pleasant society, by patient and continued assurances that time and treatment will probably overcome the evil.

Iron, in some shape, should be given steadily. In one case, a pill of extract of belladonna, gr. $\frac{1}{12}$, of sulphate of quinia, gr. j, and Vallet's mass of iron, gr. ij, was given three times a day for many months. In other cases, wine of iron, or the ferrated elixir of bark, with arsenic, may be given.

Digitalis I have used in all my later cases, and always with benefit. I believe digitaline granules gr. $\frac{1}{60}$, three times a day, have sometimes answered perfectly. In the case now in this house, the violence and frequency of the heart's action have subsided more rapidly and certainly under Niemeyer's pill than with the digitaline. This pill is made of watery extract of opium, gr. $\frac{1}{8}$; powdered digitalis, gr. ss.; and quinia, gr. j: every six hours. This patient takes also the compound gentian mixture of the hospital, which contains five grains of the ammonio-citrate of iron to each tablespoonful of the mixture. The dose is a tablespoonful three times a day.

In conclusion, I will merely say that in no disease, except insanity, is there greater need of patience, perseverance, and close attention to the patient from day to day, and from month to month, than in this; but that, with these, and some general plan of treatment such as that I have just sketched, there is always good hope of an ultimate recovery.

ORIGINAL COMMUNICATIONS.

REMARKS ON SOME OF THE PHYSIOLOGICAL AND THERAPEUTICAL ACTIONS OF VERATRUM VIRIDE.

Read before the Medical Library and Journal Association of New York.

BY EUGENE PEUGNET, M.D.,

New York.

EVER since the publication of Dr. W. C. Norwood's *brochure** in 1851, the chemistry, the physiological and the therapeutical actions of veratrum viride have attracted the attention of the profession in the United States, also to some extent in France and Germany. In the May 1st issue of the *Medical Record* I published an elaborate chemico-physiological investigation of its composition and actions; but, owing to the want of time and space, I was unable to extend it as fully as I should have desired.

In these few remarks I will limit myself to the discussion of the three following points:

I. Its action as a hæmostatic.

II. Its thermic action.

III. Its mode of administration.

Its Action as a Hæmostatic.—In an elaborate series of experiments, Dr. H. C. Wood, Jr.,† was the first to make an experiment with Mr. Bullock's so-called pure viridia,‡ which demonstrated the value of veratrum viride as a hæmostatic, as follows:

"*Experiment* 17.—I exposed the pneumogastrics and femoral artery, under ether, in a powerful, very thick-necked Scotch terrier. 11.30 A. M.—Placed Bernard's cardiometer *en rapport* with the femoral artery. Arterial pressure 120 to 130 millimetres; heart-force (single beat) 5 to 10 m. Pulse 186; gave, hypodermically, gr. 1½ viridiæ sulph. 11.35.—Arterial pressure 115 to 125 m.; heart-force 5 to 10 m. 11.40.—Pulse 160; arterial pressure 110 to 120 m.; dog quiet. 11.45.—Pulse 128. 11.55.—Pulse 80; arterial pressure, when dog is quiet, 85 to 105 m., going to 120 m. when dog struggles. I now attempted to cut the pneumogastrics. In doing this on the left side, *the carotid was cut* instead of the nerve, *and there was a profuse gush of blood, which, however, ceased in a moment or two spontaneously, aided only by pressure on the outside of the neck.* The left pneumogastric was not cut. 12 noon.—Arterial pressure 60 to 70, going up to 100 m. when dog struggles. Pulse 92. 12.5 P.M.—Pulse 92; arterial pressure 85 to 88 m. 12.8.—Pulse 92; arterial pressure 80 to 85 m., going up to 100 m. when dog struggles. 12.15.—Pulse 80; arterial pressure 75 to 80 m., going up to 90 m. when dog struggles. An attempt was now made *to kill the dog by cutting the femoral artery at Poupart's ligament. The bleeding, however, ceased spontaneously in a very little while, without seriously affecting the dog. The force of the circulation had been so greatly lowered by the alkaloid, that there was spontaneous arrest of hemorrhage in both carotid and femoral artery, without dangerous loss of blood.*"

Doctors J. W. Collins§ and H. N. Eastman,‖ in two able papers issued simultaneously, published the first reports of its therapeutical application as a hæmostatic. The former states that—

1. A case of hæmoptysis, which had resisted all the usual remedies, yielded almost at once to five-drop doses of Norwood's tincture, administered every four or six hours.

2. A case of aneurism of the left subclavian, the result of an injury to the vessel in its middle third, or just behind the scalenus anticus muscle, from the small blade of a pocket-knife. The tumor was about the size of a hen's egg, and involved all the second portion, and probably the first also, of the vessel. It was accompanied with the characteristic thrill, pulsation, pain in the shoulder and arm, absence of radial pulse, coldness of limb, etc. Not deeming an operation advisable, and digital compression being impossible, the doctor administered

* *Charleston Med. Rev.*, vol. vii. p. 768.

† *Am. Jour. Med. Sci.*, Jan. 1869.

‡ *Am. Jour. of Pharm.*, Sept. 1865, and March, 1866; *Med. Record*, May 1, 1872; *Philadelphia Med. Times*, August 15, Sept. 16, Oct. 12, and Nov. 2, 1872.

§ *American Practitioner*, Sept. 1872.

‖ *Buffalo Med. and Surg. Jour.*, Sept. 1872.

the veratrum, in the hope that it might *so lower the action of the heart as to favor the formation of a coagulum* in the aneurismal sac. He began with five-drop doses, increasing the dose, drop by drop, every third hour, till the full sedative effect of the medicine was produced. It was then continued, in doses of from five to twelve drops, for ten days. At the end of that time the tumor had entirely disappeared, a small hard lump only remaining, with very slight pulsation, no pain in the arm, no thrill, and considerable pulse at the wrist. The patient, a stout young negro, thinking he was well, left the doctor, but returned in two weeks with most of the symptoms as well marked as at first. The treatment was then resumed, and continued for fifteen days, the last six merely to make sure of a perfect recovery; for the tumor, with all its attendant symptoms, had disappeared, the radial pulse had become normal, and the natural temperature of the limb had returned. Twelve months afterwards he was still perfectly well.

3. In active and passive menorrhagia he has had perfect success with it.

4. In a secondary hemorrhage following amputation, equally so.

5. In two cases of carcinoma of the uterus, it arrested the hemorrhage.

6. In epistaxis, he has found it uniformly successful.

7. His friend Prof. J. T. Gilmore, of Mobile, used it with entire success, at the doctor's suggestion, in a case of secondary hemorrhage following amputation of the thigh, after other means had failed, and in which the bleeding was so persistent as to threaten life.

Dr. Eastman relates the history of two cases of hæmoptysis in which he arrested alarming hemorrhages which continued to recur notwithstanding the use of the ordinary remedies. He reduced the pulse to 45 in each case, by means of fifteen-drop doses of Tilden's fluid extract of veratrum viride, administered every three hours, till they complained of a "queer feeling" about the heart, when the pulse fell below 45; then, very properly, from the fear of causing a heart-clot, the remedy was only administered every four hours; the circulation thus kept under perfect control for four weeks, when it was allowed to return to its normal standard. There was no return of the hemorrhage in either case; and one, a clergyman, was enabled, by a change of residence, to resume his professional duties; the other, a physician, after a temporary change, resumed his practice.

Dr. Eastman advises to carry the administration of the remedy far enough to reduce the normal circulation to the lowest point compatible with the patient's safety.

Dr. J. W. Collins says "it should be given in doses of from three to fifteen drops (Norwood's tincture), repeated every one, two, or three hours, according to the urgency of the case,—always watching its effects."

Neither of them observed any unpleasant effects, such as nausea and vomiting.

I have administered the tincture for the purpose of arresting hæmoptysis, and to prevent its recurrence, in one case. The patient began with five-drop doses, which he gradually increased to ten without any appreciable effect on the circulation. I then administered it in fifteen-drop doses repeated every three hours, reducing the pulse from 101 to 60.

It is therefore evident that veratrum viride is valuable as a hæmostatic both in active and passive, also in traumatic and idiopathic, hemorrhages. That it acted in each case by modifying and regulating the heart's action and the circulation, there is no doubt. The study of its *modus operandi* is, therefore, of interest.

Dr. S. R. Percy,* in his experiments on bats and frogs, observed that the capillaries in the wings of the former and in the webs of the latter immediately became dilated under the influence of hypodermic injections of the drug, and that the movement of the blood-corpuscles through them was first retarded and finally ceased entirely.

M. Limon† noticed in his observations that the sphygmograph indicated an increased arterial tension when the pulse was reduced in frequency.

Dr. H. C. Wood, Jr.'s experiment‡ with Bullock's veratroidia and Bernard's cardiometer demonstrates that the peculiar tension observed by Limon was probably due to the increased power of the individual beats of the heart before its final paralysis by the toxic effects of the alkaloid. Dr. Wood's experiments further show that there was a marked reduction both in the force and rapidity of the movement of the blood, that the heart is not much affected at first, but that finally there is also a loss of power in the single beat. That its action on the circulation is through the sympathetic he also demonstrated by the experiments in which he divided the pneumogastrics.

Dr. C. Boldt,§ in eleven experiments on curarized frogs with veratria, the mode of action of which, although more powerful, is the same as that of veratrum viride, showed that it directly paralyzes the heart and arterial muscles, there being an immediate lowering of the pulse-frequency, in the size and force of its wave, and an increase in the lumen of the vessels.

It is well known that the circulation depends primarily on the heart's action, next, upon the contractile action of the arteries, finally, upon the slight action of the capillaries, and that the veins are passive agents.

All the above-mentioned observers have demonstrated that the arteries and capillaries are primarily affected; the heart becoming so secondarily. Dr. Wood, that the action of veratrum viride is independent of the cerebro-spinal centres. Schroff and Guldens, that veratrum acts primarily on the vaso-motor nerves.

These facts demonstrate that its action as a hæmostatic is due, primarily, to its action on the arterial system; and Dr. Wood's experiment (No. 17)

* Prize Essay.
† *Bull. Gén. de Thérap.*, Jan. 30, 1869.
‡ Experiment 18.
§ *Schmidt's Jahrbücher, The Doctor*, Sept. 1, 1872.

affords a beautiful illustration of the fact, the arterial pressure being at the beginning from 120 to 130 millimetres; in twenty-five minutes, 85 to 105, when the dog *struggles* rising to 120; the *carotid was then cut*, followed by a profuse flow of blood, which ceased spontaneously in a moment or two; five minutes, arterial pressure 60 to 70, rising to 100 when the dog struggles; fifteen minutes, pressure 75 to 80, rising to 90 with struggles. An attempt was then made to kill the dog by *dividing the femoral*, which was followed by the *spontaneous arrest of the hemorrhage without dangerous loss of blood.* I believe that the "profuse gush of blood" following the section of the carotid, and the loss of blood following the section of the femoral, were due to the individual action of the heart, its *vis a tergo;* for there would have been no spontaneous arrest of the hemorrhage if the contractile action of the arteries had been intact, especially as there was "*no dangerous loss of blood.*"

By comparison, we have a beautiful illustration of the action of ergot and veratrum as hæmostatics; but here the analogy ceases, for veratrum paralyzes, whilst ergot *stimulates*, causes a *contraction*, and increases *the pressure*, as shown by Dr. Alfred Meadows: he injected, subcutaneously, one grain of ergotin, in solution, into the web of a frog's foot; the circulation was observed to become much quicker, it then stopped for a few seconds, and oscillated in a spasmodic, jerking manner, and about half an hour afterwards the blood-current returned to its normal flow.

Dr. Brown-Séquard found that the vessels of the pia mater of a dog contracted during its administration, and that it acted on the spinal cord, diminishing its reflex action.*

Boldt observed in twelve experiments on curarized frogs with ergotin, that it caused a constant lowering of the rapidity of the pulse, accompanied with peristaltic or wave-like contractions and expansions of the artery; also by Nichols's and Mossop's† observations on the retina, that the ergotin diminished the capillary tint of the disk. Veratrum diminishes the blood-pressure, and equalizes the flow.

Dr. C. L. Holmes‡ has demonstrated that ergot increases the pressure in the large vessels, owing to the contraction of the minute vessels by an action on their muscular walls, and that *previous division of the vaso-motor nerves does not prevent the contraction of the minute vessels.* This diminution of calibre occurs also in the minute pulmonic vessels, causing a temporary diminution in the pressure of the systemic arteries.

We have, then, two hæmostatics; one arresting hemorrhage through its action on the vaso-motor nerves, the other by its action on the spinal nerve-centre. *The ergot arrests it immediately by pressure and contraction; the veratrum not so rapidly, but prevents a tendency to a recurrence by diminishing and equalizing the arterial pressure.*

In the treatment of aneurisms, we again have a remarkable analogy of effect between the two. Langenbeck,§ Dutoit,‖ and others have demonstrated the efficacy of hypodermic injections of ergotin in aneurisms, one of which was situated in the right supra-clavicular fossa; it acted by pressure and contraction; whilst the remarkable action of veratrum in the cases of aneurism reported by Dr. Collins was not due so much to its action on the heart as to its action on the arteries, thereby diminishing the rapidity and force of the circulation, and favoring the formation of a *laminated clot* in the aneurismal sac, as is done in the treatment of aneurisms by compression, and which occurs in those cured spontaneously.

Its Thermic Influence.—Bärensprung, Traube, Wunderlich, Seguin, and others,¶ have demonstrated the value of the thermometer as a means of diagnosis and prognosis, also as an indicator of therapeutical applications. Although many have written on veratrum viride and its actions, only Oulmont,** Limon, E. Amory, and S. G. Webber†† have alluded to its thermic action. It was also strikingly shown in the experiments that I made with one of its alkaloids, the veratroidia, and with its two alkaloids when combined, the temperature being invariably reduced from two to five degrees, whether in physiological experiments or in its therapeutical application. These facts would most certainly lead us to conclude that its great power in inflammatory and febrile affections is in a high degree due to this action; and would it not be well for us to study its action more closely in those affections in which the temperature rises to 108.°30 Fahr., the prolongation of which would indicate a fatal termination?

Its *modus operandi* in these cases as a depressant of caloric can only be explained by its primary action on the vaso-motor nerves through the circulation. For if this action of veratrum viride and of its alkaloids was due to their action as spinal motor depressants, as has been asserted by some observers, it would disprove the observations of Schiff and others, that the increase of caloric was due either to paralysis of the spinal nerve-centre, or to an action independent of the section of the sympathetic nerve. Nor can it be explained exclusively by the supposed accumulation of carbonic acid in the blood, and its subsequent action on the cerebro-spinal centres; for in all the recorded cases of poisoning there is not a single one noted in which the patient died from asphyxia or coma; nor did they even present the appearance of either. It is, however, true that in various experiments the animals *apparently* died from asphyxia; but all the observers agree as to the heart's action being arrested at the diastole, which rather confirms Maurice Schiff's‡‡ and C. Boldt's views; especially as the heart failed to respond to electricity,

* *Archives de Physiologie*, 1870.
† *Practitioner*, Sept. 1868.
‡ *Brit. and For. Chir. Rev.*, p. 205, July, 1872.

§ *Berliner Klinische Wochenschrift*, 1869.
‖ *Langenbeck's Archiv*, Bd. xii. No. 3.
¶ Wunderlich's and Seguin's Med. Thermometry.
** *Bull. Gén. de Therap.*, lxxiv., p. 145, 1867.
†† *Boston Med. and Surg. Jour.*, 1869.
‡‡ *Imparziale de Firenze*, 1870.

whilst the voluntary muscular fibres retained their contractility.

I conclude. therefore, that—

I. Its action as a hæmostatic; and

II. Its action as a depressant of caloric, are due entirely to its action upon the vaso-motor nerves.

(To be continued.)

A CASE OF LARGE SMOOTH WHITE KIDNEY (CHRONIC CATARRHAL NEPHRITIS.)

Reported, with specimens, to the Pathological Society of Philadelphia, December 12, 1872,

BY JAMES TYSON, M.D.,

One of the Attending Physicians to the Philadelphia Hospital, etc.

C. R. C., a native of Pennsylvania, aged 28 years, a painter by occupation, was admitted to the Philadelphia Hospital Sept. 4, 1872. He was in good health until three years ago, when he became affected with what appeared to be epileptic convulsions. He had, at this time, repeated convulsions, which recurred at the end of six months, and again six months later. Since then they have been increasing in frequency, until at present there is not more than ten weeks' interval. He had the last fit five weeks before admission.

He has been frequently exposed to wet and cold weather, and during the Chicago fire such exposure continued for several days, a few days after which he entered a hospital in that city, with diarrhœa. In November, 1871, swelling of the feet appeared, and about the same time he noticed puffiness of the eyelids in the morning on rising. Gradually this œdema extended, until the whole body became involved. The condition of his kidneys was recognized in the Chicago Hospital, and he was treated with "broom tea" and hot-air baths.

On admission, his condition was as follows: His face was swollen, sallow and sodden in its appearance, his extremities were œdematous, and there was some ascites, but no hydrothorax. He was freely passing urine which was highly albuminous and contained granular and hyaline casts. He was ordered f℥ij of solution of the acetate of ammonia three times a day, with solution of the acetate of iron as often.

On Nov. 30 is found the following note: "He is passing 65 ounces of urine in twenty-four hours, and the swelling appears to be steadily diminishing, but it is still quite decided in the face. There is still abdominal effusion, while his legs and arms pit somewhat on pressure."

Nov. 12.—This morning the right side of his face was very much swollen, though he is still passing 65 ounces of urine in the twenty-four hours. Infusion of scoparius, f℥ij three times daily, was ordered internally, and cloths wet with infusion of digitalis were directed to be applied to the abdomen. The solution of acetate of ammonia was omitted.

Nov. 13.—He has had three convulsions in the past twenty-four hours, during which he has passed but 34 ounces of urine. His face is enormously swollen, and he can scarcely open his eyes. He was ordered, in addition to the above treatment, ⅛ gr. of elaterium.

Nov. 14.—Elaterium has operated freely. Condition little altered, but has had no more convulsions.

Nov. 23.—His face seems less swollen, but the ascites is marked. The urine is almost solid with albumen, and contains highly granular casts and compound granule-cells. He was ordered in addition to the above a grain of digitalis and a grain of squills three times a day. The infusion of digitalis to the abdomen, which was discontinued several days ago, was again ordered, and the broom tea was continued. He is growing weaker.

An ophthalmoscopic examination of the eyes by Dr. William F. Norris gave the following results: *Right* eye. The veins and arteries of the disk have nearly their normal size; the fibres of the retina, spreading out from the disk, whitish and œdematous, can be followed nearly the disk's diameter into the retina; this condition is more marked along the course of the large veins. The choroid between the disk and macula lutea appears woolly and granular. There are no blood extravasations, no white patches. The macula is plainly visible, the fovea centralis showing yellow, reddish-brown pigmentation around it. *Left* eye nearly in the same state.

Nov. 27.—Bowels are quite loose, and swelling in abdomen is evidently diminishing. Urine 44 ounces.

Nov. 30.—Has had numerous watery stools since last note, with which urine was also passed, so that its quantity could not be accurately estimated. Œdema and ascites are diminishing. A little opiate was ordered to control the bowels. All other treatment, except by stimulants, omitted.

Dec. 2.—Œdema is almost absent from the extremities; the face is still swollen, but the abdominal effusion is greatly diminished. Evacuations are still watery, but not so numerous or large. Passes urine with stool, so that quantity is unknown. Is rapidly growing more feeble.

In 640 cc. of urine, sp. gr. 1009, passed from 2 P.M. November 30 to 2 P.M. December 1, a volumetric analysis determined 3.424 grammes, or about 52.8 grains, of urea. He died suddenly on December 3, 1872, neither in coma nor convulsions.

Post-mortem examination, eighteen hours after death. Œdema has almost entirely disappeared. No effusion in *pleural cavities*; slight old adhesion in lower part of left lung. The *pericardium* contained f℥iijss of fluid. There was found in the *left ventricle* a white, firm, fibrinous clot which extended into the aorta five inches, furnishing a perfect mould of the arch, from which passed off also as perfect moulds of the innominate artery and its two divisions, and of the left carotid and subclavian with their chief branches. In the *right ventricle* was also found a clot extending into the pulmonary arteries and branches. The *spleen* was elongated and lobulated, and contained an infarctus, but was otherwise normal in structure. The *kidneys* were perfect examples of the large smooth white variety, the left weighing 11½ ounces, the right 11 ounces. The capsule was readily removed, and on section the convoluted portion was greatly enlarged, and contrasted strongly in its dead-white color with the normal red of the cones. An attempt to minutely inject one of these kidneys was unsuccessful. *Microscopical* examination showed the tubules and the intervals between them to be filled with granular matter.

Remarks.—This case presented the usual course of a so-called chronic catarrhal nephritis. The point of evident interest is the connection between the convulsions and the disease of the kidneys. Were they the result of uræmia? Much might be written upon the subject without even then definitely settling the question. The convulsions first made their appearance three years prior to his death. Renal disease was recognized one year before he died. This affection was, however, of a kind, as confirmed by post-mortem examination (catarrhal nephritis), which is not insidious in its irruption, but manifests its characteristic symptoms more or less suddenly; and though commonly attended by convulsions in its latter stages, these are seldom the first discovered symptom. Had the case proved to be one of *chronically-contracted kidney*, which often

exists for years without manifesting itself by any symptom, and as often without previous warning explodes in a convulsion, a relation between the early convulsions and the disease might be admitted. As it is, we are inclined to admit none; but to consider the patient an epileptic, who contracted, by exposure, acute nephritis, which passed over into the large white kidney (chronic tubal nephritis of Dickinson), of which he died in something more than a year after the renal affection set in.

That the convulsions were, however, at a later stage influenced by the disease and rendered more frequent by uræmia, we think is beyond question; and that the convulsions which he had while under treatment at the hospital were at least due to the action of the peculiar poison of uræmia upon a brain epileptically susceptible, if this poison was not the sole cause, is proved likely by the results of volumetric analysis, which showed a marked diminution in the normal proportion of urea in the urine.

The immediate cause of his death, as shown by the post-mortem examination, was evidently heart-clot.

Appended is a table of the quantity of urine passed per twenty-four hours, during a portion of his residence in the hospital:

Oct.	5	83 oz.	Nov.	3	50 oz.
"	6	80 "	"	4	50 "
"	7	70 "	"	5	70 "
"	8	80 "	"	6	60 "
"	9	130 "	"	7	60 "
"	10	116 "	"	8	65 "
"	11	116 "	"	9	50 "
"	12	110 "	"	10	60 "
"	13	80 "	"	11	54 "
"	14	20 "	"	12	65 "
"	15	75 "	"	13	65 "
"	16	60 "	"	14	16 "
"	17	70 "	"	15	10 "
"	18	60 "	"	16	20 "
"	19	65 "	"	17	unknown
"	20	65 "	"	18	"
"	21	65 "	"	19	44 "
"	22	60 "	"	20	44 "
"	23	80 "	"	21	32 "
"	24	70 "	"	22	26 "
"	25	75 "	"	23	52 "
"	26	60 "	"	24	52 "
"	27	45 "	"	25	52 "
"	28	60 "	"	26	44 "
"	29	65 "	"	27	52 "
"	30	40 "	"	28	44 "
"	31	50 "	"	29	47 "
Nov.	1	65 "	"	30	unknown
"	2	60 "	Dec.	1	25 "

NOTICE OF AN ARTICLE BY GIRAUD-TEULON ON THE TRANSIT OF VENUS OVER THE SUN.

BY GEORGE C. HARLAN, M.D.

AT a time when every one who reads the newspapers feels some interest in the transit of Venus over the sun, announced by astronomers for 1874, a short notice of an article on the subject, from an ophthalmic point of view, by Giraud-Teulon, may not be out of place. It appeared in a recent number of the *Annales d'Oculistique*, in the form of a criticism of a lecture by M. Wolf, of the Paris Observatory.

Astronomers look forward to this transit of Venus as an event of great interest and importance, as affording an opportunity to determine more exactly the distance of the earth from the sun; and several of the European governments are already occupied with preparations for observing it correctly.

Of course, the accuracy of the calculations based upon the observations will depend in a great measure upon the exactness with which the precise moment of contact of the two disks is noted; and this is the point in which oculists are interested.

In this and similar observations, a serious difficulty has been met with in the observation of the point of contact of the edges of the two disks by a dark spot which has been described, for more than a century, under the name of the "*goutte noire*," or "*ligament noir*," and which seems to have been something of a "*bête noire*" to the astronomers.

It has been held that this was a natural and necessary phenomenon, and that the real moment of contact was marked by the formation of this dark line as the disks came together, and its disappearance as they parted. An explanation was sought in the "irradiation of light," an expression which was rather loosely and vaguely used.

M. Wolf illustrated the principle of this explanation by reference to the appearance of the new moon. When its crescent is little more than a curved line, the rest of its surface is not quite invisible, but is dimly discerned by light reflected from the earth, and the contour of the bright crescent seems to belong to a larger circle than that which bounds the obscure portions. Thus it has been said that any object brightly illuminated appears larger than it really is.

On this supposed fact the explanation of the black line was founded, and its appearance, in all observations of this kind, was considered an absolute necessity.

Some excellent observers, however, supplied with the best instruments, were unable to see it,—a fact sufficient almost of itself to destroy the generality of the phenomenon and reduce it to an accident of observation.

M. Wolf proved this to be the case by a series of experiments, in which the conditions of the astronomical observation were produced artificially.

These experiments showed that the dark line, instead of marking the beginning and end of the transit, considerably preceded the former and followed the latter, and the experimenter concluded that the "ligament noir" was not an essential, but a foreign, phenomenon, whose appearance obscured the real phenomenon and led the observer into error.

This conclusion Giraud-Teulon pronounces unassailable. He differs widely, however, from M. Wolf in his theory of the cause of the obscuration, for which the latter searches in spherical aberration of the telescopic image. Of the figures exhibited in proof of this view, Giraud-Teulon says that he cannot avoid a suspicion that the ocular apparatus of the observer has played the

principal *rôle* in their production. He further claims that, in experiments similar to those of M. Wolf, he has been able to avoid the appearance of the "ligament noir," or to produce it at will, by preserving a perfect adaptation between the refraction of the instrument and that of his own eye, or by disturbing that relation. He recommends the interposition of a stenopœic apparatus between the eye of the observer and the eye-piece of the instrument, and believes that this would dispel the obscuration and bring out clearly the point of contact of the images.

According to Giraud-Teulon, the phenomenon of the "ligament noir" has the same origin as that of the apparent increase of diameter of the lunar crescent and the apparent multiplicity of its horns, and, like it, will disappear on accurate adaptation of the eye.

This illusion in the appearance of the lunar crescent, the rays of stars, and similar phenomena, are known to be caused by monocular polyopia, the result of what Donders calls normal irregular astigmatism, which is dependent on the structure of the crystalline lens.

The principle of this explanation may be illustrated by reference to the optometer of Scheiner, of which Dr. Thomson has made a familiar and valuable means of diagnosis. If a distant point of light be viewed through several small holes close together in an opaque screen,—pin-holes in a card, for instance,—as many lights will be seen as there are holes, if the eye is not accurately focussed ; but if the refraction of the eye is perfect the images will all fall upon the same point of the retina, and, covering each other accurately, will be seen as one.

In much the same way, all of the sectors into which the crystalline lens is divided form separate images, which will fall upon the same spot of the retina if the adaptation of the eye is perfect ; otherwise they will be seen separately, if the object is small enough, or will cause obscuration and confusion by partial covering and overlapping, if it is larger. The former can be proved by approaching a small black speck on a white ground gradually to the eye, until it is brought within the distance of distinct vision, when it will appear as a circle of gray spots. The latter has been illustrated by reference to the illusion in the appearance of the moon.

I have already occupied too much space, and will not follow further the argument of the author or presume to trespass with any opinions of my own upon even this border region of the great science of astronomy ; but that "the object of an optical instrument is to present, at a certain distance from the eye, a certain definite image," and that therefore "the first practical problem to be solved should be to regulate the relations that must exist between this image and the eye of the observer," is a proposition that no one who has had much experience in the use of the ophthalmoscope, particularly by the direct examination, will be slow to accept.

"Know thine own eye" might be a not inappropriate injunction to all engaged in optical experiments or observation.

The author regrets the neglect, on the part of physicists, of the physiology of vision, and says there is good reason to believe that men of the greatest learning too often attribute to the outer or objective world phenomena that exist only in the imperfections of their own eyes.

Myopic individuals may find consolation in the fact that, though emmetropia may be the rule in "the eye of the peasant, the hunter, or the sailor, it is much less invariably so in that of the educated classes, and becomes less and less common as we ascend in the scale of the classes perfected by close work," so that "the more learned one is, the less sure can one be of a perfect eye."

Ruptured Jejunum—Absence at First of Serious Symptoms (*Lancet*, December 14, 1872).—John R., aged 32, brewer's man, was admitted into the London Hospital, under the care of Mr. Rivington, February 19, 1872. Patient was walking across a plank laid over a brewer's vat, when he missed his footing, and fell a distance of sixteen feet. When he came to the hospital, he was examined by the house-surgeon, who was unable to detect any sign of a serious injury, and, consequently, gave him an out-patient's ticket. Later in the day he returned, complaining of pain in the chest and also at the lower part of the belly. He was admitted as a case of contused chest. The patient was a very stout man, with much fat on his body, and it was therefore difficult to examine satisfactorily his ribs and sternum. His water was drawn off, and it was like dark tea, without blood. He vomited once when he came in. Subsequently he had a disposition to vomit, but did not bring up anything. When seen about five o'clock by Mr. Rivington he did not exhibit the usual signs of the injury from which he was suffering ; he did not complain of pain in the abdomen, he was not sick, and he was not in a state of collapse. In the course of the evening severer symptoms came on, and he died on the following morning at 11 A.M. At the post-mortem examination the jejunum was found ruptured near the duodenum, and the sternum was fractured.

Nitrite of Amyl in Melancholia (Höstermann : *Wiener Med. Presse*, October 20, 1872).—In accordance with the suggestions from English sources and Prof. Meynert, of Vienna, Dr. Höstermann has made a series of experiments with this drug in cases of melancholy.

Inhalations are preferable to subcutaneous injections or to the internal administration of the remedy.

In 10 to 15 seconds the pulse becomes more frequent ; in 30 to 40 seconds the face becomes red, the conjunctiva injected, and the subjective warmth of the body increases. At the same time the arteries pulsate more vigorously, the head feels constricted, and the patient experiences the feelings of mild intoxication after wine-drinking. With these symptoms the patient is more lively, and shows it both in his features and his manner. The external signs of the drug disappear in three-quarters of a minute after the cessation of the inhalations ; but there seems to be a somewhat more permanent change for the better in the psychical condition of the patient.

This treatment is not suited to those cases where the melancholia depends upon some cause of exciting anxiety, for the excitement produced by the inhalation of the remedy will only increase the malady. It is rather suited to those cases of melancholia due to sluggish circulation and impeded nutrition in the brain.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, JANUARY 18, 1873.

EDITORIAL.

FREE SUMMER PARKS.

WITH the opening of the new year it seems appropriate to bring forward again—and indeed it is none too early—the subject of plans for preventing the infantile mortality of the summer. Many of our readers will remember a communication from Dr. Henry Hartshorne, which appeared in our columns in September last, proposing the establishment of free parks or camping-grounds, where the poor could go by families, and escape the baleful effects of city air. Another article on this subject, by Dr. J. M. Toner, of Washington, published in the *Northwestern Medical and Surgical Journal* for November, is before us, with editorial comments by Dr. H. C. Hand.

We believe that to the *New York Times* is due the credit of proposing the free excursions for the poor children of that city, which were so successfully organized, and which were as successfully imitated by the benevolent here and elsewhere, during the heated term of 1872. The plan now under consideration is an expansion of that excellent scheme. We have at present neither space to discuss it, nor indeed any definite ideas to bring forward as to how or where it can be practically carried out. All that we can do is to invite those who may be able to devise arrangements for the purpose, or who have any suggestions to offer in regard to the matter, to take the earliest opportunity of so doing, and to place our columns at their disposal.

Funds for so admirable an object would, we feel assured, flow freely into the treasury of a properly organized association. But in order that the greatest amount of good may be accomplished, an early and energetic start should be made in the work.

"HOSPITAL SUNDAY."

OUR readers will doubtless have seen this caption in many of the issues of the medical periodicals in Great Britain. It hardly needs either explanation or comment. Assuredly no outgrowth of Christianity can be more genuine or legitimate than the devoting of collections taken at places of worship, and as a part of that worship, to the relief of human suffering. In this city it has for many years past been the custom of the Protestant Episcopal churches to place the money taken at the service on Thanksgiving Day to the credit of the hospital of that denomination; and, for all we know, other sects may have done the same by their own kindred institutions.

We should like to have this a recognized feature of the vast network of charities which exists in so many American cities. Whether by agreement or by the action of individual sects, it would go far towards strengthening the hold of the various beneficent institutions upon the affections and sympathies of the public. Services are held by nearly or quite all the denominations on the day known in this country as Thanksgiving Day, which would therefore be perhaps more suitable and convenient than any given Sunday as the fixed time for remembering the claims of the sick and suffering upon the benevolence of their more favored brethren. Experience has shown that far more is accomplished by such united action than by the irregular movements of individuals, when funds are needed to meet the steadily recurring demands of charitable objects or institutions.

THE MORTUARY LIST FOR 1872.

DURING the year just ended, the profession in this city has suffered serious losses by death. Some of those who have "gone over to the majority," as Jackson, Dickson, Gerhard, Mason, Bell, Wistar, Brookfield, and LaRoche, were men far advanced in life, whose day of active usefulness had long waned. But the destroyer claimed also some, as Hollingsworth, Fish, Robinett, Pepper, and L. S. Stillé, who had not reached the usual limit of man's years of prime. For the unblemished records and honorable memories left by these our brethren, we may well be thankful.

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times:

DEAR SIR,—The writer is the unfortunate author of a paper published in the last volume of the Transactions of the American Medical Association,—a paper which has suffered most grievously from careless proof-reading.

Permit me to point out some of the errors, and their character will sufficiently indicate that the epithet careless is not at all too strong.

On page 126 of the volume referred to, I find "accommodations" substituted for accumulations, and "insidious" for invidious,—in each instance the substitute destroying the meaning of the sentence in which it occurs, if not making utter nonsense. On page 127 the words "round-shirts," "persistence," and "decorations" are given for roundabouts, penitence, and declamations.

On the next page the reader finds in part of a sentence the following, "Carlyle, Mill, Huxley, and Rankin," and possibly wonders who Rankin is. Ask the intelligent and careful proof-reader. The author wrote Ruskin.

On page 130 a sentence reads as follows: "And possibly, too, the best ideal of a medical journal has not yet been obtained, has not yet been developed with the actual." Replace "obtained" by attained, and "with" by in, and the sentence is tolerable; but, as printer and proof-reader have made it, it is intolerably bad.

Other errors almost as mortifying as those that have been mentioned can be found; but the list is long enough. A man, no matter how poor he is, does not like to see his children, no matter how homely they are, walking the streets in rags. Almost equally as trying is it for one to have the children of his brain thrust ragged and disorderly before the public, when the rags and disorder are not of his producing.

Now, the moral of the story is, in my opinion, this: Authors have the right, and should always have the opportunity, of correcting their proof.

T. P.

ANNUAL REPORT OF THE HOSPITAL OF THE PROTESTANT EPISCOPAL CHURCH.

THE Twenty-first Annual Meeting of the Contributors to the Hospital of the Protestant Episcopal Church was held January 7, 1873, pursuant to the charter, at the office, 708 Walnut Street. George Washington Smith, Esq., was called to the chair, and the Rev. John A. Childs, D.D., was appointed Secretary.

The Report of the Board of Managers, together with the annual statements and accounts, was then presented, and on motion it was

Resolved, That the Report and accompanying documents be referred to the Board of Managers, for publication at their discretion.

The following is an abstract of the Report: During the year 940 patients have been admitted; at the date of last report, 104 patients were in the hospitals at the first of the year, making the whole number treated during the year, 1044.

Of these, 941 were discharged, of whom 643 were cured, 167 improved, 57 unimproved, and 74 died, leaving 103, or 67 men, 30 women, and 6 children, in the wards at the end of the year.

There have been 6147 Dispensary patients prescribed for during the year. Of this number, 4448 were medical and 1699 were surgical cases.

The average daily number of patients in the wards of the hospital was $10\frac{3}{4}$.

The average duration of treatment was 38 days.

The average daily number attending the Dispensary, 20.

The average number of prescriptions daily was 33.

No. of prescriptions given in Dispensary for the year ending December, 1872, 10,170.

Cost of maintaining each patient, $\$39\frac{80}{100}$.

Daily cost of maintaining the hospital, including medicines for Dispensary patients, $\$113\frac{88}{100}$.

Total cost of maintaining the hospital for the year, $44,035.71.

For the support of the hospital, the Treasurer reports the following amounts, viz.:

From individuals and churches for the support of beds	$4,457.86
" individual contributions	2,331.00
" churches on Thanksgiving Day	12,722.36
" interest from moneys invested	12,863.25
" Grasby Fund for the support of patients suffering with diseases of the chest	3,324.09
" George Washington Smith for the endowment of a bed for Christ Church (permanent)	5,000.00
" Estate of Edward H. Trotter ($5000, less inheritance tax)	4,762.50
" Superintendent for board of patients	8,275.04
	$53,736.10

At the meeting, I. V. Williamson, Esq., presented to the hospital, through Mr. John Welsh, $35,000,—this, with previous donations of $15,000, making a total of $50,000, the interest of which is to be used for the support of the hospital forever.

S. R. Knight, M.D., *Superintendent.*

REVIEWS AND BOOK NOTICES.

A Manual of Histology. By Prof. S. Stricker, of Vienna, Austria, in co-operation with Th. Meynert, T. von Recklinghausen, Max Schultze, W. Waldeyer, and others. Translated by Henry Power, of London; James J. Putnam and J. Orne Green, of Boston; Henry C. Eno, T. E. Satterthwaite, Edward C. Seguin, Lucius D. Bulkley, Edw. L. Keyes, and F. E. Delafield, of New York. American Translation edited by Albert H. Buck, Assistant Aural Surgeon to the New York Eye and Ear Infirmary. With 431 Illustrations. Large 8vo, pp. 1106. New York, Wm. Wood & Co., 27 Great Jones Street, 1872.

The profession are already so familiar with "Stricker's Histology" that it is scarcely necessary to explain either the object or the scope of the treatise. The present edition, by Wm. Wood & Co., furnishes the entire treatise in a single large and conveniently-arranged volume. It includes as much of the translation of Mr. Power as is contained in the first volume of the New Sydenham Society's Translations, of which two volumes

only have appeared. The translation of Mr. Power covers 406 pages of the present edition; but the remaining articles are translated by the American gentlemen above named. Nearly two-thirds, therefore, of the book are translated by Americans, who are physicians especially interested in the departments which they have undertaken. In this there is evident advantage, as one who is already familiar with a subject is the more likely to grasp obscure points, which are perhaps rendered still more obscure by being couched in a foreign idiom. There is also likely to be more freshness about an article thus translated than if it form, in the original, one of a large number, and by different authors, translated by a single individual; for the weariness which must necessarily grow upon the translator of so large a volume is not relieved by the increasing familiarity which he must acquire if the papers are all by the same author.

This series of papers, edited and in many instances written by Prof. Stricker, constitutes at once the most extended and most accurate treatise on histology extant. And as the study of histology is a subject which admits only the latest and most accurate information to its aid, this work must necessarily supersede all others. It becomes, therefore, absolutely indispensable to every histologist and physiologist in the world, as well as to all physicians and surgeons who would pursue their departments with all the light of modern science. This beautiful edition of Wood & Co., which reflects great credit at once upon the translators and the publishers, will be bought by most who are not subscribers to the New Sydenham Society's valuable publications, while its convenience of form and anticipation of a large portion of Mr. Power's translation will cause it to be purchased by many who are also subscribers to the Society's translations.

English and American physicians have been signally fortunate in the opportunities afforded in the last few years to avail themselves of the labors of German investigators, and in Stricker's Histology, Rindfleisch's Pathological Histology, Niemeyer's practical works, and Frey on the Microscope, they possess a storehouse of information which must not only increase their intelligence, but also their usefulness. J. T.

The Anatomy and Development of Rodent Ulcer. A Boylston Medical Prize Essay for 1872. By J. Collins Warren, M.D. 8vo, pp. 65. With Two Colored Plates. Boston, Little, Brown & Co., 1872.

This essay is one of the results of a growing inclination on the part of young American physicians and surgeons to make original researches in special subjects, —a work for which many of them have been prepared by instruction and experience in the laboratories of Germany and Austria. Dr. Warren is a young surgeon of Boston, who has evidently profited by his opportunities. He has not only carefully studied cases, but has also made thin sections of the morbid tissue, and furnished accurate drawings of the microscopic appearances afforded by them. It is but justice to state, however, that these drawings, as Dr. Warren informs us, were made upon stone by Dr. H. P. Quincy, artist to the Massachusetts General Hospital, from originals furnished by the author. Dr. Quincy is perhaps the only gentleman in this country who has made the subject of drawing the magnified pictures afforded by the microscope a subject of special study. The importance and success of such drawing have been amply shown in the results of the labors of Mr. T. West, of London.

The observations of Dr. Warren lead him to believe, with Thiersch and Billroth, that rodent ulcer is a form of epithelial cancer, but "the mildest form of cancer with which we have to deal." The following are his conclusions:

1. All those cases of rodent ulcer examined are forms of epithelial cancer.

2. They differ from those forms of epithelial cancer of which cancer of the lower lip is the type, in the small size of the epithelial cells.

3. These ulcers may be divided histologically into two different groups, according to the arrangement of the cancer-cells,—viz., into tubular or alveolar.

In the course of some remarks on the development of the disease, is furnished an admirable *résumé* of the *origin of the cancer-cell*, which should be familiar to every surgeon as well as pathologist. In conclusion, we are informed that "in summing up, then, the results of these observations, we find that in certain cases—

"1. The formation of the cancer-cells is preceded by an escape of the white blood-corpuscles through the walls of the vessels, and an accumulation of similar cells in the adjoining lymphatic canals.

"2. That this is followed by an apparent transformation of these cells into cells resembling strongly the epithelium of the rete Malpighii.

"3. That the epithelium of the parts affected does not appear to take an active part in the process, but may exert a certain influence on the character of the formation taking place.

"4. That the cancer-cells may lie in the lymphatic spaces of the connective tissue, and do not invade, to any appreciable extent, the lymphatic vessels."

The Journal of Anatomy and Physiology. Conducted by G. M. Humphry, M.D., F.R.S., etc., and Wm. Turner, M.B. Second Series. No. XI., Nov. 1872. Macmillan & Co.

This excellent number of one of the best periodicals published is full of interest to the physician and surgeon. We have only space to note the titles of some of the leading papers: a notice of quadruple mammæ in two adult brothers; tissue-metabolism, a continuation; observations on the distribution of some of the nerves of the head and neck; sphygmography; the effect of exercise on bodily temperature; observations on the structure of the human placenta; action of digitalis on the blood-vessels; on the Kombé arrow-poison; peculiar malformation of the leg and foot; effect of stimuli on the secretion of the parotid gland; valves in the renal veins; experiments as to the causes of the presence of bile-pigment in the urine.

The reports on the Progress of Anatomy, on Physiology, and on the Physiological Action of Medicinal and Poisonous Substances, are complete and full of valuable material.

GLEANINGS FROM OUR EXCHANGES.

Mode of Growth of Long Bones (*British Medical Journal*, Sept. 28, 1872).—At the recent meeting of the French Association for the Advancement of Science, at Bordeaux, M. Ollier (Lyons) stated the results of his recent experiments on the mode of growth of the long bones. The theory of peripheric growth, which he has held for a long time, has been lately combated by the learned German doctors Wolf, Calmann, and Meyer, who are supporters of interstitial growth. M. Ollier has observed anew a great many times that two nails placed on the diaphysis of a bone, at an accurately measured distance, are separated by the same space when the animal, having become an adult, is sacrificed. In very young animals there is sometimes a slight divergence, never exceeding more than a fourth of the whole length of the bone. This fact would seem

to weaken the theory, if one did not know that very young and in consequence soft bones are under the general law of growth of soft tissues, of which the development is interstitial. A more considerable divergence of the osteoplasts in adult bones has also been made an objection to the theory of peripheric growth; but the researches of Ranvier have demonstrated the variableness of these elements, and in consequence their utter uselessness in this question. When the cartilage of conjugation is removed, the growth of the bone is stopped, or at least diminished. Interstitial growth is observed occasionally in certain birds, and in some mammals; but in this last case the anomaly explains itself, because the bone, softened by inflammation, has taken the properties of the soft tissues. Moreover, this growth is never more than a very small fraction of the length of the bone which is the seat of it. Passing from the normal to the pathological growth of bone, M. Ollier remarked that since 1867 he has shown that irritation of the diaphyses of a long bone provokes the lengthening of this bone; whilst the irritation of the cartilage of conjugation leads to the arrest of its development, and that not by the more rapid solidification of the epiphysis, but by a simple perturbation in the work of ossification. The clinic confirms the results of the experiment. Another fact, which has great practical importance, is the inequality of the part of the two cartilages of conjugation in the development of bone. The humerus grows especially by the superior cartilage of conjugation; the radius and the ulna, on the contrary, by their inferior cartilage, in such a way that the constituent parts of the elbow are only of very slight utility in the general development of the superior limb. The reverse takes place in the articulation of the knee and the bones which form it. M. Ollier insists on the importance of these facts, because of the results that attend articular resections practised on children. He has observed since 1861 that, after resections of the elbow in young children, the superior limb continues to grow, whilst the inferior limb hardly grows any more after resection of the knee. The deformity which results from this stoppage of the development is more and more exaggerated as the fellow-limb continues its normal growth. After resections, as after certain inflammatory lesions, a growth lengthwise of the limb operated on is sometimes observed. This lengthening is not accompanied by hypertrophy of the bone; it becomes, on the contrary, lighter. Hence M. Ollier has called this growth the atrophic lengthening. M. Ollier explains this anomaly by the diminution of the pressure which the bones exercise on one another. The diminution of this pressure leads, in fact, to an atrophic lengthening. This it is easy to observe in the bones of a paralyzed limb, but without waiting for that general atrophy which soon succeeds the functional inertia of the limb.

Detection of Blood-Stains. — Dr. Edward S. Wood, in the *Boston Medical and Surgical Journal* for January 2, reports that *Fres. Zeitsch. f. Anal. Chem.* (1872, ii. p. 244) contains a note from Dr. Helwig, contradicting a statement made in the *Chem. Centralb.*, 1871, p. 37, that a solution of blood-pigment in iodide of potassium cannot be used for the production of blood-crystals, but only for spectroscopic examinations. It has long been known that a solution of iodide of potassium will extract from clothing the slightest trace of blood-coloring matter, it being possible to obtain a solution suitable for testing even when the clothing has been washed and the stain is very old. In the present instance Dr. Helwig exhibited a specimen of hæmin-crystals which he had obtained by treating a piece of linen upon which a blood-stain had existed for sixteen years, with a solution of iodide of potassium. The residue left after the evaporation of one drop upon a glass slide gave beautiful hæmin-crystals upon the application of Teichmann's test, when the remainder of the solution, examined by the spectroscope, gave an absolutely negative result.

Teichmann's test, the ordinary test for hæmin-crystals, is performed by rubbing upon the dried residue in a watch-glass or on a microscope-slide a very small quantity of ammonic chloride or common salt, adding to the mixture a drop of glacial acetic acid, and warming until bubbles form under the covering glass, showing that the boiling-point of the acetic acid has been reached. Upon cooling, crystals of hæmin can be detected by the microscope.

In the same journal (1872, i. p. 29) we find mentioned by H. Struve an additional test for blood-pigment, which is applicable to the testing of both urine and clothing-stains for blood. This test is based upon the precipitation of hæmatin from an acetic acid solution by tannic acid as tannate of hæmatin, and may be performed in the following way. To the urine or any other liquid suspected to contain hæmatin is added a little ammonia-water or potassic hydrate, then a solution of tannic acid, and finally acetic acid, to distinctly acid reaction. If hæmatin be present, a reddish-brown precipitate, tannate of hæmatin, is formed, which quickly settles and can be very easily washed and collected on a filter. This precipitate, after drying, gives a residue with which we can obtain hæmin-crystals by performing Teichmann's test. This test is far superior to Heller's test for blood in the urine, in which the hæmatin is mechanically carried down with the earthy phosphates, after the addition of ammonic or potassic hydrate. By the above method the author claims to have detected the presence of blood when all other reactions have failed; for instance, in urine when he could not detect the albumen by any of the ordinary tests. In 20 cc. of urine to which 0.023 per cent. of blood was added, a precipitate was obtained which permitted numerous examinations for hæmin-crystals to be made by Teichmann's test.

The same author (*Fres. Zeitsch.*, 1872, ii. p. 150) states that he has separated from the blood two new coloring-matters. One is soluble in alcohol and water, difficultly soluble in ether, and forms, when dry, a dark greenish-brown mass which chars without puffing up, and, after ignition, leaves a residue, consisting of oxide of iron, phosphoric acid, and silica. It is precipitated from its solution in water by acids, and the application of Teichmann's test does not yield hæmin-crystals. The other pigment separates in the form of dark bluish-black microscopic crystals, reminding one of indigo. These crystals are insoluble in water, alcohol, ether, chloroform, and acids, but are soluble in alkalies with the production of a dark-brown solution. If precipitated from the alkaline solution by acetic acid, and the precipitate subjected to Teichmann's test, the result is the most beautiful hæmin-crystals. Concentrated sulphuric and nitric acids dissolve this pigment with a greenish-yellow color, concentrated hydrochloric acid and aqua regia decompose it, and glacial acetic acid is without action upon it, unless ammonic chloride has been previously added, in which case it dissolves it, forming a dark-brown solution, which, upon evaporation, yields large pure hæmin-crystals. After ignition, the residue consists of pure oxide of iron. These crystals he considers to be identical with Virchow's hæmatoidin. An elementary analysis of these pigments is promised.

The Cure of Stammering (*N. Y. Medical Record*, Jan. 1).—The mode of treatment followed by M. Chervin, of Lyons, in this affection, has lately been the subject of investigation by a commission appointed by the Department Council. The commissioners state

that they find the system successful, rapid, and permanent in its effects; which opinion confirms those of earlier date, given by commissions appointed in France, Belgium, Spain, etc.

Eight patients, severely affected with stuttering, were submitted, under the observation of the commissioners, to the system of M. Chervin. They varied in age from ten to twenty-nine years, and none of them could speak without stammering to an extent most distressing to themselves and to those who heard and saw them. In some cases the act of speaking was accompanied with convulsive movements of the mouth and eyes; in others, with spasmodic respiratory movements. Some had stammered from their infancy; in others the defect had been caused by a shock to the nervous system. Ten days after they had been placed under M. Chervin's treatment they were seen by the commissioners, and each of them could then speak distinctly, without stammering or hesitation; and on the 28th they were pronounced cured, speaking then with natural ease and rapidity.

The system is as follows. All mechanical contrivances are discarded; but he teaches the patient, by means of a large number of exercises, gradually to pronounce, with distinctness, vowels, consonants, syllables, and sentences. He pays great attention to the act of respiration, which he seeks to regulate. He teaches his patients to take at certain intervals a slow but normal inspiration, which is succeeded by an even, continuous, and loud expiration, during which pronunciation is effected. The course of treatment occupies twenty days, the time being divided into three periods. During the first the patient is restricted to complete silence, so that the old habit may be broken; during the second period the patient is taught to speak slowly and deliberately; and during the third period he acquires the practice of speaking fluently and without clipping the words. This method is stated to have succeeded in the most difficult cases, and the good results are said to be permanent; but this greatly depends on the patient, who must occasionally make use of the means which were first used to cure him.

Testing the Purity of Air (*Dublin Journal of Medical Science*, Nov. 1872).—Dr. R. Angus Smith has devised a simple form of apparatus by which any person of ordinary intelligence and education might readily determine whether or not the amount of carbonic acid in the air of a place was above the normal or any other proportion. Baryta-water is a most sensitive re-agent for the detection and precipitation of carbonic acid. If half an ounce of baryta-water, containing about 0.08 gramme of baryta, be placed in a clear glass bottle having a capacity of 640 cubic centimetres (22 ounces), and the latter be well shaken, a turbidity (produced by a precipitation of barium carbonate) will be observed, if the proportion of carbonic acid in the air be 0.04 per cent.,—that is to say, the 0.2515 cubic centimetres of carbonic acid contained in the bottle will unite with the barium of the baryta-water, and form 0.00224 gramme of insoluble barium carbonate in half an ounce of water. The precipitate obtained renders the liquid turbid, but not quite opaque; it may be described as translucent. If a bottle of the capacity of 154 cubic centimetres (5.42 ounces) be employed instead of one of 640 cubic centimetres, no turbidity is produced in the baryta-water; on the other hand, if the bottle contain 44 ounces, or the air 0.08 of carbonic acid, the precipitate is twice as abundant. It is easy, then, by making an experiment in the pure open air, to observe the density of the turbidity caused by shaking half an ounce of baryta-water in a closed bottle or jar of 22 ounces capacity; and if, on repeating the experiment in a room, the turbidity is increased, then it is to be concluded that the carbonic acid is in excess and the air impure. Any medical officer of health or hospital physician might, by the aid of a few clear glass bottles of different sizes and a supply of baryta-water (lime-water might be substituted for baryta-water), easily ascertain the proportion of carbonic acid in the atmosphere of the places under his charge. A little practice would soon enable him to discriminate between the precipitate given by 0.04 and 0.08 per cent. of carbonic acid in the air. As houses practically never have as pure air as the tops of mountains, we may rest satisfied when a bottle of 3.78 ounces avoirdupois capacity gives no precipitate when half an ounce of baryta-water is shaken up in it. The air under such circumstances may contain 0.06, but cannot include 0.07, per cent. of carbonic acid. If lime-water be used, then half an ounce of it (containing 0.0195 gramme of lime) is to be shaken up in a 10½-ounce bottle, and it will remain clear if the carbonic acid be below 0.07 per cent.

Borax and Nitrate of Potassa for Loss of Voice.—Dr. John W. Corson, of Orange, N.J., in the *N. Y. Medical Record* of January 1, 1873, gives a number of cases, and then says,—

"For clearness and convenience, we may sum up the results of our experience in the following brief conclusions:

"1. That in sudden hoarseness or loss of voice in public speakers or singers, from 'colds,' relief for an hour or so, as by magic, may often be obtained by slowly dissolving and partially swallowing a lump of borax the size of a garden-pea, or about three or four grains, held in the mouth for ten minutes before speaking or singing. This produces a profuse secretion of saliva, or 'watering' of the mouth and throat. It probably restores the voice or *tone* to the dried vocal cords, just as 'wetting' brings back the missing notes to a flute when it is too dry.

"2. Such 'colds' may be frequently 'broken up' at the very commencement; and this restorative action of the borax to the voice may be materially aided by promptly taking, the evening previous to a public effort, dissolved in a glass of sweetened water, a piece of the nitrate of potassa, or 'saltpetre,' a little larger than a garden-pea, or about five grains, on going to bed, and covering with an extra blanket. The patient should keep warm next day. This both moistens the dry throat and further relieves the symptoms of 'cold' and slight blood-poisoning from suppressed perspiration, by reopening the millions of pores of the skin more or less closed by cold.

"3. These remedies have the three recommendations of being easy to obtain, convenient to carry in travelling, and perfectly harmless.

"4. They are nearly or quite useless in the actual cure of long-continued chronic disease of the throat, or acute inflammation or 'tonsillitis,' both of which require other appropriate treatment."

To Kill Lice (*Edinburgh Medical Journal*, Nov. 1872).—All kinds of lice and their nits may be got rid of, *tuto*, *cito*, *et jucunde*, by washing with a simple decoction of stavesacre (*Delphinium staphisagria*), or with a lotion made with the bruised seeds in vinegar, or with the tincture, or by rubbing in a salve made with the seeds and four times their weight of lard very carefully beaten together. The acetic solution and the tincture are the cleanliest and most agreeable preparations, but all are equally efficacious in destroying both the creatures and their eggs, and even in relieving the intolerable itching which their casual presence leaves behind on many sensitive skins. The alkaloid delphinia may be also employed, but possesses no advantage, except in the preparation of an ointment, when for any reason that form of application should be preferred.

MISCELLANY.

Power of Imagination.—Dr. D. H. Tuke, in his recent work, "Illustrations of the Influence of the Mind upon the Body," etc., quotes an anecdote given by Mr. Braid, that "he requested four gentlemen, in good health, and from 40 to 56 years of age, to lay their arms on a table with the palms of their hands upwards. Each was to look at the palm of his hand for a few minutes with fixed attention, and watch the result. Entire silence was enjoined. What happened? 'In about five minutes, the first, one of the present members of the Royal Academy, stated that he felt a sensation of *great cold* in the hand; another, who is a very talented author, said that for some time he thought nothing was going to happen, but at last a *darting, pricking* sensation took place from the palm of the hand, as if electric sparks were being drawn from it; the third gentleman, lately mayor of a large borough, said that he felt a very uncomfortable sensation of heat come over his hand; the fourth, secretary to an important association, had become rigidly cataleptic, his arm being firmly fixed to the table.'

"It would be difficult to determine in these instances by what train of thought these different results came to pass; whether each imagined that such and such effects would be produced by the process, or whether an accidental condition of the hand at the moment caused certain very slight suggestions, which were intensified by the attention directed to them. Probably the former; but one thing is certain, that had Mr. Braid suggested other effects, instead of preserving silence, the character of the sensations would have been greatly modified."

Newspapers.—*The Edinburgh Medical Journal* says, "One of the recent deliverers of the introductory lectures in London attacked the *Daily Telegraph*, warning the students not to read it, and got most mercilessly mauled by that journal as his reward; but Professor Max Müller is even bolder, for he attacks the whole genus, and says that the daily perusal of a newspaper for five years would break down the most vigorous memory in the world; the constant succession of fleeting impressions allowing none to take strong hold, and thus enfeebling the retentive power. The *Lancet* very properly points out that it is not merely the memory that is thus impaired, but also the judgment, which, by a rapid transition from subject to subject, becomes perfunctory in its exercise; the faculty of sustained attention is impaired, and a superficial, uninquiring, and far from independent habit of mind is induced. Ephemeral literature is very often recommended as an occasional relief from severer studies, and, judiciously practised, the advice may be productive of good; but of the truth of our contemporary's remarks there can be no doubt, and all wise students should reduce the perusal of ephemeral literature to a minimum."

℞.—A correspondent of the *Lancet* says, "It is an interesting fact, and one of which very many of your readers may be unaware, that the prefix which we daily place at the head of our prescriptions, imagining it to be the letter R as representing the word *recipe*, is in reality a relic of superstition. To planetary influence from the most ancient periods the very successful effects of the healing art were ascribed, and it was usual to prefix to receipts the symbol of the planet under whose reign the ingredients were to be collected. The astrological symbol of Jupiter was subsequently invariably employed, and has now been disguised by the addition of the down stroke, the cloven foot (℞) alone remaining as the tell-tale of its superstitious origin. Such is the history of what we usually prefix at the head of every prescription, and is worth knowing as an interesting fact, a link still binding together the present and the past, a relic of the dark days of physic."

Effects of Tobacco.—The *Medical Press and Circular*, in the course of an article on this subject, says M. Bertillon found that 102 of the pupils attending the Polytechnic School of Paris smoked tobacco, while 58 did not. Arranging the two categories in the order of merit, according to the results of examinations, he found that, in every grade, non-smokers held the higher rank, and that the smokers deteriorated from the time they entered until they left the school. Facts like these induced the Minister of Public Instruction to issue to the directors of colleges and schools throughout France a circular, forbidding tobacco to students, on the ground that it checked their physical and intellectual development. The editor says, "Among ourselves the habit is getting too common. . . . . But how is the habit to be stopped, *when meerschaum pipes are even given for prizes in Sunday-schools?*"

The Yale Medical School.—The *College Courant* says, "We see by the last catalogue that provision has been made in the plan of the new hospital building, at New Haven, for the accommodation and advantage of the Yale Medical School. Such a spirit is as pleasant as it is wise. The efficiency of the Medical School directly affects the success of the hospital management, but we feel the accommodation to the college is dictated as much by a friendly feeling towards it as by an enlightened selfishness. We are glad to see such a cordial spirit developing between the citizens and the college, for the idea that there is an irrepressible conflict between 'town and gown' has lived fully long enough and done fully enough mischief."

Politics and Medicine.—According to the Paris correspondent of the *New York Daily Times*, evident radicalism prevails at the Paris School of Medicine among the students and professors, while anything like communist language brings down the house. So well is the audience known, that professors are said to introduce politics designedly and for the purpose of winning popularity.

Dr. Max von Pettenkofer has been called from the chair of hygiene, in Munich, to the same in the Hochschule at Vienna.

KITCHEN-RANGE EXPLOSIONS.—One of those singular "epidemics" of a certain kind of accident, often noticed, has just occurred in this country. In various regions there have been, between the 28th of December, 1872, and the 4th of January, 1873, about a dozen explosions of the boilers of kitchen-ranges; several of them attended with the loss of one or more lives. Of course the cold weather and the consequent freezing of the pipes may be assigned as the general cause of these disasters; but why they should have been so rare in former winters and so numerous in this can hardly be explained.

A TELEGRAPHIC dispatch, dated London, January 6, says, "In the case of the ex-Emperor Napoleon, a second operation was performed at noon to-day. The patient was put under the influence of chloroform. The difficulties were unusually great, but the results were not unfavorable. The Emperor suffered much, but rather from constitutional disturbance than from the effects of the operation. His strength holds out well."

[Our readers will all know by this time of the fatal result in the Emperor's case, which took place January 9, an hour or two before a third *séance* of lithotrity was contemplated.]

COLLEGE OF PHYSICIANS OF PHILADELPHIA.—At the stated meeting of this body, held January 1, the following officers were elected for the year:

President, Dr. George B. Wood.
Vice-President, Dr. George W. Norris.
Secretary, Dr. John H. Packard.
Treasurer, Dr. J. Rodman Paul.
Recorder, Dr. J. Ewing Mears.
Librarian, Dr. Robert Bridges.
Censors, Drs. Isaac Hays, Joseph Carson, Lewis Rodman, Edward Hartshorne.
Councillors (for three years), Drs. W. S. W. Ruschenberger and James H. Hutchinson.

STATISTICAL.—The *Wiener Med. Presse* of Nov. 17 says, "There were in Italy, between 1864 and 1870, 55,049 deaths from other than natural causes, of which 42,870 were accidental, 17,090 by murder, 4984 by suicide, 184 by judicial procedure, and 22 by duels. The greatest number of suicides took place in Calabria, Sardinia, and Lombardy; the smallest in the Basilicate, in Emilia, and in Liguria. The deaths by intemperance were most numerous in Piedmont, Lombardy, and Venetia."

APPOINTMENTS.—Drs. Wharton Sinkler and Horace Y. Evans have been appointed on the medical staff of the Episcopal Hospital, in this city, to fill the vacancies caused by the resignations of Drs. A. M. Slocum and J. Cheston Morris; and Drs. Bennett and Henry were elected to serve on the dispensary staff.

Dr. James Markoe has been appointed one of the physicians to Girard College, in the place of Dr. Hollingsworth, deceased.

EVEN so late as 1680 a pound of cinchona cost in England eight pounds sterling. But it had its enemies at the same time. In 1729, Johann Canold, a physician of Breslau, declared upon his death-bed that he would sooner die than owe his life to an agent opposed to all his principles.

THE census of France for 1872, just completed, shows the population to be 36,102,921, a decrease of 366,935 since 1866. The decrease is attributed mainly to the war, besides which causes there have been many fatal cases of smallpox and a falling-off in the number of marriages.

DR. WILMER WORTHINGTON, of West Chester, Pa., an old and highly-esteemed practitioner of medicine, for several years past Speaker of the lower house of the State Legislature, is very ill at his home, and fears are entertained that he cannot recover.

PROFESSOR KLOB is to be transferred from Vienna to Prague, to take the chair of Pathological Anatomy vacated by the death of Prof. Treitz, whose suicide we noted some time since.

DR. CARL RUDOLPH BRAUN, the distinguished Professor of Obstetrics and Gynæcology at the University of Vienna, has been raised to knighthood, with the title of "Fernwald."

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending Jan. 11, 1873, were 325; 200 adults, and 125 minors. 10 were of bodies brought from the country; making the mortality of the city 315. Among the causes of death were:

Consumption of the Lungs	41
Other Diseases of the Respiratory Organs	70
Diseases of the Circulatory Apparatus	21
Diseases of the Brain and Nervous System	42
Diseases of the Digestive Apparatus	21
Hernia	3
Zymotic Diseases	18
Typhoid Fever	4
Casualties	10
Exposure	1
Cancer	2
Intemperance	3
Suicide	1
Debility (including "Inanition" and "Marasmus")	30
Still-born	21
Old Age	16

(The interments reported for the week ending Jan. 13, 1872, were 504.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER.		BAROMETER.
	Max.	Min.	(2 P.M.)
Jan. 5	37.0°	31.0°	29.84 in.
" 6	36.0	26.5	30.33 in.
" 7	31.5	21.5	30.49 in.
" 8	33.0	20 0	30.16 in. (Rain.)
" 9	33.0	22.0	30.11 in.
" 10	28.0	18.0	30.28 in.
" 11	16.0	8.0	30.50 in.

SATURDAY, JANUARY 25, 1873.

ORIGINAL LECTURES.

LECTURES
ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

LECTURE I.

EXAMINATION OF THE PARTS.

INSPECTION of the throat by the ordinary means of depressing the tongue permits an examination of more or less of the pharynx and of the epiglottis, and occasionally a glimpse of the upper margin of the larynx; but, as usually performed, it exposes only a small portion of the pharynx. The best method of obtaining the most extensive view possible consists in using a tongue-depressor long enough to reach the base of the tongue and to press it down without slipping, and to stand by the side of the patient rather than in front of him; then, as we look into the throat, which must be well lighted up, we cause the patient gradually to depress the chin upon the breast, and at the same time we press the tongue more and more downward and forward upon the floor of the mouth with a firm though gentle pressure. In this way we can almost invariably expose the entire pharynx, and, with it, more or less of the free surface of the epiglottis. If the patient does not bear the manipulation well, we can depress first one half of the tongue and then the other. Sometimes by titillating the epiglottis with the end of the tongue-depressor we can cause the momentary elevation of the entire larynx, and gain a view of its upper circumference. To examine the upper portion of the pharynx, the head is thrown back, the tongue merely kept from bobbing up by slight pressure upon it, and the soft palate raised by voluntary inspiration. Sometimes a blunt hook is passed behind the palate, in order to raise this structure and thus expose a greater surface of the pharynx to view.

To inspect the interior of the larynx and trachea, we now avail ourselves of little mirrors, which are placed within the cavity of the mouth and held in such a position as to reflect light into these structures and thus present us with an image of the parts illuminated. If the mirror is held behind the palate, so as to illuminate the upper walls of the pharynx and the posterior outlet of the nasal passages, we have in like manner a view of the image of these structures.

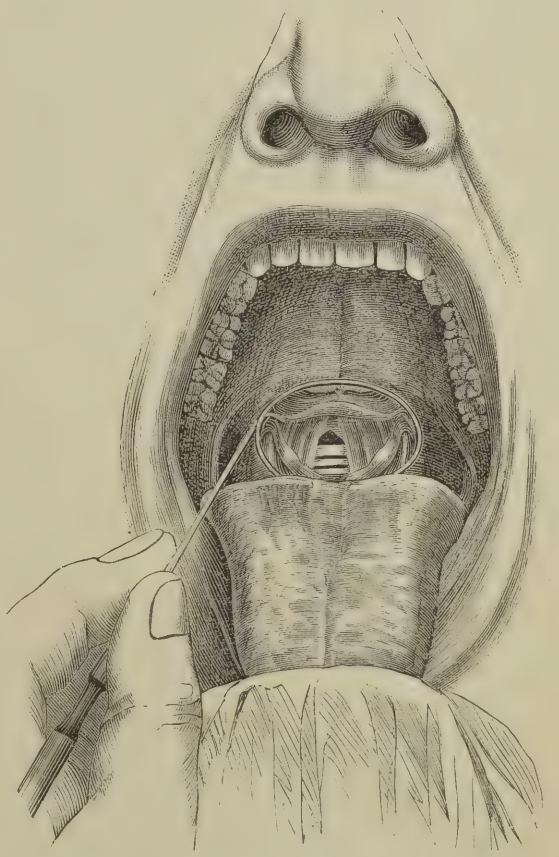
The anterior portion of the nasal passages is examined by the aid of some suitable contrivance for spreading the nostrils and thus permitting illumination of the passages.

The method of examining the larynx and adjacent parts by reflection is known as laryngoscopy; that of examining the region of the posterior nares and the upper portion of the pharynx is called rhinoscopy. As is well known, these methods have been perfected of late years only, and, though deemed of great value by the profession generally, have not yet come into constant use. It is to be hoped that they will eventually be as commonly and universally employed as are auscultation and percussion.

LARYNGOSCOPY AND RHINOSCOPY.

The history of the invention was merely illustrated by the lecturer's extensive collection of the various instruments that have been devised from time to time and employed for the examination of these parts. Among the earlier attempts to obtain an inspection of the laryngeal cavity were mentioned and illustrated those of Bozzini with his cumbersome specula, Warden's unwieldy glass prisms, and Babington's with the simple dental mirror. The earliest attempt was made by Levret, in 1743. Without entering into the details of the controversy regarding priority of discovery be-

Fig. 1.



THE LARYNGOSCOPIC MIRROR IN POSITION.

tween Türck and Czermak, the lecturer stated that it was mainly due to the efforts of both of these indefatigable workers that laryngoscopy and rhinoscopy at once gained recognition as valuable and indeed indispensable aids to the practitioner. This is not, however, the occasion to enter into a detailed history

of these subjects. Those who are interested can find all the information to be obtained in the various monographs. Our present object is to discuss briefly the most convenient method of manipulation.

In making these examinations it is necessary to have a good illumination, either from the direct or reflected rays of the sun, or from a good artificial light.

The operation consists essentially in introducing a small mirror within the cavity of the mouth in such a manner as to reflect the light upon the parts to be examined, so that we can see their image in the mirror. The most convenient form of mirror for this purpose is a circular looking-glass about an inch in diameter, well silvered, and firmly soldered to a stem at an angle of about 120°. In some cases a much larger mirror can be used, and in others it is necessary to employ a smaller one. Where the space is encroached upon by enlarged tonsils, it is necessary to use an oval mirror narrow in its transverse diameter. The diagram (Fig. 1) represents the appearance of the mirror in position, and the character of the image reflected from it in a laryngoscopic examination. The head of the patient is erect or slightly bent backwards, the tongue protruded, and prevented from slipping back by being held with a handkerchief or napkin. The handle of the mirror is seized much as one would seize the handle of a pen, with the mirror pointing upwards, its reflecting surface being horizontal and looking downwards; and the hand is moderately extended on the wrist, as seen in the diagram (Fig. 2). The

Fig. 2.

Manner of Holding the Mirror when about Introducing it.

mirror is then passed to the posterior portion of the pharynx, without touching the tongue, and the uvula and soft palate gently raised upon it, the wrist being flexed so as to render the handle of the mirror horizontal and bring the plane of its reflecting surface in a direction looking downwards and forwards. The success of the manœuvre depends upon avoiding contact with the tongue, and keeping the mirror steady so as not to tickle the parts. Pressure of the lower border of the mirror upon the pharynx is well borne, and affords a sufficient support to the instrument.

The small reflecting mirror is heated over a flame for a moment or two, to warm it so that the vapor of the breath may not condense on its surface, an occurrence which would disperse the rays of light and render reflection impossible. Care must be taken not to heat the mirror to such a point as to burn the patient. If the mirror is watched while being warmed in this way, it will be seen that condensed moisture at once deposits, and immediately evaporates from circumference to centre. The moment the mirror is clear it is fit for use. This plan is much better than that of dipping the mirror into hot water.

When the mirror is in position, we recognize in it an image of the larynx and contiguous structures. The oblique position of the mirror throws the image of these structures (base of tongue, epiglottis, etc.) which are in front in the patient to the upper part of the mirror, and those which are behind (arytenoid cartilages, posterior wall of pharynx, etc.) to the lower part of the mirror; these parts appearing reversed,—that is to say, the epiglottis, tongue, etc., which are really anterior, appear as if they were posterior, and the arytenoids, etc., which are really posterior, appear to be anterior, in the image. It requires a little consideration at first to render this reflection intelligible, but after a short study the relations of parts in the subject and in the image can be promptly appreciated.

IMPEDIMENTS TO EXAMINATION.

With ordinary care and a moderate amount of skill, a satisfactory examination can be made at the first attempt, except in very rare instances. If the impediments to examination depend upon inability or unwillingness to open the mouth, we may, if necessary, distend the mouth by a gag,—such as is used when operating for cleft palate,—or we may introduce a short plain glass speculum and pass the mirror through it. If the tongue rises too much in the mouth, we may control it by placing the finger, a penholder, or something of that kind upon it, as a sort of reminder, to steady it as it were. If the palate and pharynx are very sensitive, we may be compelled to pass the mirror higher up and make its reflecting surface more horizontal, so as to throw the light upon the larynx without touching any of the parts; but this is difficult and constraining; and it is therefore better to accustom the parts to bear the contact of the mirror, by repeatedly touching them with it. The application of astringent sprays, or of morsels of ice, and the inhalation of a few whiffs of chloroform, are methods which promptly control undue irritability; but their use is seldom called for, the irritability being created most frequently by the trembling hand of the manipulator.

If the tonsils are enlarged to such an extent as to preclude the use even of an oval or a very small mirror, their excision becomes necessary.

If an elongated uvula presents an obstacle, it should be shortened by excision, if the use of astringents fails, as is almost always the case, to retract it.

If a depressed epiglottis prevents the reflection of the light to the interior of the larynx, it is to be pulled forward by a blunt bent wire, probe, or whalebone rod, passed behind it.

If the respiration of the patient is spasmodic or hurried, it must be corrected before proceeding to the examination.

(To be continued.)

ORIGINAL COMMUNICATIONS.

SOME CASES OF GUNSHOT WOUND.

BY JOHN H. PACKARD, M.D.,

One of the Surgeons to the Episcopal Hospital, Philadelphia.

AN important question in many cases of gunshot wound is, whether probing should or should not be resorted to in order to determine the presence or the situation of balls or other foreign bodies. It will be remembered that in a recent murder trial in New York an attempt was made to ascribe the death of the victim to violence done in this way by the surgeons; and cases occur in which such a plea might assume, and justly, great weight.

The authority of writers on military surgery has generally been sufficiently decided in favor of this procedure in wounds of the extremities, and against it in those involving either of the great cavities. The question really turns upon the necessity or practicability of extraction. If the missile has done all the harm it is likely to do, or if it is evidently so lodged that its removal would involve either danger or great difficulty, it would be worse than folly for the surgeon to persist in satisfying his curiosity as to where it is or how it got there.

The cases now to be detailed are given in support of this view.

Case I.—In the summer of 1871, on a very hot night, I was called, at about 1 A.M., to see Mr. R., æt. 22, who had been shot in the chest. The circumstances of the affair were very curious. Mr. R. was sleeping in the same room and bed with his friend Mr. B., at the house of the latter, whose family were out of town. They were *both* wakened by the report of a pistol, and Mr. R. found himself suffering intensely from a wound just below the clavicle, on the right side, between the first and second ribs, and about two inches from the median line. The shock was very severe.

When I arrived at the house, about twenty minutes after the shooting, I found Dr. Leach already in attendance. Mr. R., excessively pale, was floundering about in bed, shrieking and uncontrollable, slight hemorrhage taking place from the orifice made by the ball. There was some expectoration of frothy florid blood. With much difficulty, Dr. L. and myself suceeeded in quieting him sufficiently to administer a small quantity of brandy, with a few drops of laudanum; and after a few doses of this, at intervals of fifteen minutes, he became sufficiently calmed to give his account of what had happened. Subsequently he showed great fortitude and resolution. The state in which we found him had been simply the effect sometimes seen in military practice from gunshot wounds even of slight moment.

It appeared probable that Mr. B., whose house had been robbed some time previously under very painful circumstances, had been roused by a noise, got up, took his pistol, which he kept loaded in his bedroom, and then lay down to listen; he fell asleep, when a movement of his bedfellow again partially roused him, and he sprang up; Mr. R. rising at the same moment, Mr. B. fired, thinking him a burglar.

Dr. Hunt was, at our suggestion, called in for further consultation soon after the accident happened.

Until about 5 P.M. of the next day, Mr. R. continued in an extremely critical condition, blanched, cold, and pale, with an excessively rapid pulse, pinched features, and labored respiration.

At the time above mentioned, there was a favorable change in Mr. R.'s symptoms. He had dulness on percussion over the upper two-thirds of the right chest posteriorly, with absence of respiratory sounds; but in front the lung seemed clear. His pulse still remained at about 120 per minute, and feeble; but his mind was clear, and his courage good.

From this time forward he steadily improved under very simple treatment, but with careful watching and good nursing, and in four weeks he was able to be taken home. The dulness on percussion over the back of the right lung cleared day by day. Soon afterwards he began to go about, and is now—eighteen months having elapsed—in perfect health, a gymnast, as before, and in every way quite well.

Remarks.—It would be difficult to name any more dangerous locality for a gunshot wound, not immediately and necessarily fatal. The ball must have gone close to the innominate artery and vein and the right pneumogastric and phrenic nerves. We thought it probable that the second intercostal artery was wounded, and that from this an effusion of blood had taken place in the cavity of the pleura, causing the percussion-dulness and the want of respiratory sounds. During the first seventeen hours his condition was so critical that we could not think of any attempt to find the ball, and subsequently it was equally out of the question to risk interfering with the favorable progress of his case by probing. Moreover, the ball had already done, as it seemed to us, all the harm it could. The probability is that it lodged in the loose connective tissue beneath the right scapula, and that it is encysted there to this day. The calm fortitude and courage of the patient, enabling him to submit quietly to the restraint we imposed on him, had much to do with the happy issue of the case.

Case II.—James C., æt. 31, born in Ireland, and a laborer by occupation, was admitted to the Episcopal Hospital in the evening of September 1, 1871. He stated that he was walking, after supper, with a friend on the "Connecting Railroad." At about 8½ o'clock a peach train stopped near them, because of some disarrangement of the engine. He and his companion approached an open door, and the inmate of the car asked his companion what was his business, and used abusive language. His companion became frightened, and ran off. C. continued standing by the car, and was shot by the railroad hand. He was brought to the Episcopal Hospital at about 11.40 P.M. There was scarcely any external hemorrhage, and no symptom to indicate any internal. The wound was three and a half inches directly above the umbilicus. When probed, the direction of the ball seemed to incline obliquely from left to right and slightly downwards. He was put to bed, given an ounce of whiskey, and a hypodermic injection of morphia to the extent of about one-third of a grain; was then ordered one teaspoonful of the officinal solution every two hours. Vomited a short time after admission.

September 2.—Pulse good; pain much relieved; dose of liq. morph. increased to two teaspoonfuls every two hours.

September 3.—Pulse good; tongue clean; pain much reduced. Dose reduced to one teaspoonful, with the

same interval; also ordered f℥i of whiskey three times a day.

September 4.—Patient exhibited symptoms of acute peritonitis. Decubitus marked; pain severe; great anxiety of countenance. Ordered twenty-five leeches to abdomen, followed by a turpentine stupe and then a poultice.

September 5.—Much relieved.

September 9.—Had a passage from his bowels.

September 11.—Bowels had discharged freely. No bullet found in fæces. Morphia suspended.

The fæces were examined until the day of his discharge (October 1), but no bullet was found. He went away feeling perfectly well.

Remarks.—In this case also it seems most likely that the bullet lodged somewhere in the connective tissue, the intestines yielding to its passage. What special organs were endangered, it is impossible now to say.

I may remark that the probing was all done before I had seen the man at all, and that, in my opinion, it was not only useless, but dangerous, so soon as the fact was ascertained that the bullet had traversed the anterior wall of the abdomen.

Case III.—On the 3d of July, 1872, a man, æt. 30, was brought into the Episcopal Hospital, having been shot in the right eye by a policeman, with a pistol. The ball was supposed to have entered the brain. The man's symptoms were those of collapse. He rallied, however, and was seized with nausea and vomiting. The resident surgeon, standing by, heard some solid body strike the basin, and found it to be the ball, flattened and bent out of shape. No untoward symptoms followed; but the eyeball suppurated, and on the 11th, eight days after the injury, I excised it. Everything went on well, and the patient eloped from the hospital about two weeks later, to escape re-arrest by the police.

I have since seen him, and he is perfectly well.

Case IV.—David B., a policeman, æt. 48, shot himself in the head with a pistol, July 4, 1872. He was brought to the Episcopal Hospital the next day. The ball had entered almost exactly at the centre of the forehead, making a small orifice, in the skin around which there were imbedded numerous grains of powder. A probe was carefully passed backwards about three and a half inches, without meeting with the slightest resistance. The ball was not felt. He showed no signs of cerebritis, but was melancholy, and expressed himself determined to die.

He lived, almost without symptoms except mental excitement and delirium, for sixty-eight days, his death being the result of exhaustion.

An autopsy was made on the 14th of September, four days after death, the head only being examined. He was greatly emaciated.

The wound in the forehead was a very little to the left of the median line. Encysted at the hole in the skull there lay two pieces of the bullet and a little bit of bone. Several bruises, or, at least, ecchymoses, were noted in the scalp, one very large one a little above and behind the left ear.

The calvaria was very much congested. All over the surface of the left hemisphere there was effusion of lymph, and the brain was very full of blood. The track of the bullet seemed lined with consolidated brain-matter, and the bullet itself lay imbedded in softened and bloody brain-matter, close to the upper surface of the brain, near the longitudinal sinus, having apparently gone directly backward until it came in contact with the dura mater. Below, and corresponding to the large bruise of the scalp before mentioned, there was a very considerable effusion of blood, perhaps partly absorbed. A good deal of bloody serum was effused in both lateral ventricles.

The cerebellum was congested and softened.

Remarks.—The probing in this case was done with the utmost care and gentleness,—once only, and then because we could not otherwise know that the ball had passed out of reach. Its result might have been valuable; for had this man been accidentally shot, and willing to second any attempts for his relief, I would have placed him on his face, with careful mechanical support arranged for the head, with a view to letting the ball gravitate towards the orifice of entry. As it was, we could hardly keep him in bed at all, restraint, by means of handcuffs fastened to the bedstead, being necessary almost the whole time.

The bruise at the left side of the head was the result of a blow from a club in the hands of a prisoner, some weeks before the man shot himself. The medico-legal question arose, how far this blow could be assigned as the cause of mental aberration, and thus of the fatal act. The grand jury decided, in my opinion very properly, that there was no distinct evidence of connection between the two events.

1928 Spruce Street, January, 1873.

REMARKS ON SOME OF THE PHYSIOLOGICAL AND THERAPEUTICAL ACTIONS OF VERATRUM VIRIDE.

Read before the Medical Library and Journal Association of New York.

BY EUGENE PEUGNET, M.D.,
New York.

(Continued from p. 247.)

II. Its Mode of Administration.—The preparation of this valuable remedy has led to an elaborate and varied series of chemico-physiological investigations. Although Messrs. H. W. Worthington, Joseph W. Richardson, Dr. S. R. Percy, and M. Bullock have worked earnestly, they have all failed, with the exception of Mr. Worthington, who demonstrated the existence, in the root, of an alkaloid, the veratroidia, and of Mr. Bullock, who demonstrated the existence of a second alkaloid, the viridia. My investigations confirmed the existence of these alkaloids, and demonstrated their distinct chemical reactions and physiological actions; further, that the remarkable sedative powers of the plant were due to the *combined action* of the alkaloids. Unfortunately, they were not conclusive enough to demonstrate the exact proportion of each alkaloid necessary for that purpose, and, like my predecessors, I was compelled to fall back on its tincture and its fluid extract.

Why? Because it is a recorded fact that in our researches for the active principles of vegetable remedies we find that, although chemistry enables us to separate the active principles of plants, physiology demonstrates that the action of these principles frequently varies from that of the plant

itself. Yet this is not surprising; for do we not in the preparation of our pharmaceutical compounds endeavor to, and do we not actually, effect chemical combinations of mineral substances in order to obtain either an increased or a modified action? Is it therefore surprising that this chemical combination should exist in organic substances?

The active principles of plants generally exist as gallates or tannates, and are held together in intimate combination; it is in that form that we should endeavor to obtain them: unfortunately, our chemical knowledge does not enable us to do so as yet, save by extracting the active principles of plants with alcohol.

Numerous formulæ have been suggested, but there are only two in vogue at present,—Norwood's tincture and the fluid extract.

These preparations are not always reliable, owing to the careless manner in which the root is gathered, and also to the length of time it has been kept. To obviate this, and to obtain a saturated tincture of uniform strength, I consider the following rules imperative:

1. The root should be gathered immediately before the plant blossoms, as it is then in its full vigor. About the middle of May is thè appropriate time for this latitude.

2. The root should be allowed to dry spontaneously for forty-eight hours, the small rootlets then carefully removed, and the root ground or *bruised.*

3. The best formula is Norwood's, which has been adopted in the United States Dispensatory; with this modification, however, that the bruised root should be allowed to macerate for at least forty-eight hours before being placed in the percolator.

Experience and study have taught me that this is the best method for preparing tinctures, whether of the blossoms, leaves, stems, barks, or roots, and that all tinctures should be prepared on the native soil of our pharmaceutical plants; thus obtaining a uniform strength of tinctures.

III. Its Hypodermic Administration.—As it has so far been impossible to separate the alkaloids in their natural combination, I have made the following experiments, with—

1. The alkaloids extracted from the root by means of acetic acid;

2. Norwood's tincture, to which an acid reaction was given with acetic acid, then an equal volume of distilled water added to it, and the whole evaporated on a water-bath till all the alcohol was expelled, thus reducing the mixture to the original volume of the tincture, then separating the precipitated resin by a filter;

3. By preparing gallates and tannates of the alkaloids.

The first two produced such irritation on my arm, as well as on animals, that I do not consider the practice advisable. This irritation is due to the veratroidia, and my experience with it will probably account for the hypodermic injection of veratria having been practically abandoned in France.

The gallates and tannates are insoluble salts, and therefore I did not experiment with them.

The viridia alone is not irritant, but it is *inert as a sedative.*

Veratrum viride is not so much in vogue as formerly, owing to the uncertainty of its preparations, to its misapplication, and to its disagreeable and even somewhat alarming effects.

The objection to the uncertainty of its action is easily guarded against.

The one against its misapplication lies in the power of every practitioner to obviate; that is, accuracy of diagnosis, a proper appreciation of the therapeutical applications, and a proper knowledge of its physiological action.

As to its disagreeable and alarming effects. The first are easily guarded against by giving a few drops of Magendie's solution with it, which is rarely necessary after the first dose. For children, a few drops of paregoric will answer. In reference to the latter, they have been, I am inclined to believe, greatly exaggerated, and they are in a great measure due to the manner in which it has been generally administered, that is, five- to six-drop doses hourly, and increased *guttatim.* Although the remedy is not cumulative in its sedative action, it has a decided action on the pneumogastric nerve, and through this action it causes nausea and vomiting; but if we administer a full dose—ten to fifteen drops—we have at once a decided sedative action, and we can regulate it by a proportionate reduction of the dose, and a proportionate interval between each one. Whilst I have seen unpleasant effects induced by increasing the dose *guttatim*, I have never seen any unpleasant effect from adopting the opposite course.

I know of no agent in pharmacy which is more potent and decided in its action as an arterial sedative and a depressant of caloric. It acts much more rapidly than aconite; moreover, its action is entirely different: aconite acts primarily on the spinal centres, and its secondary action on the vaso-motor system is twofold; primarily in small doses it acts on the cardiac plexus, causing a contraction of the vessels, diminishing the flow of the blood; secondarily, in three- to five-drop doses it causes a dilatation of the blood-vessels, and the rapidity of the circulation is greater. Hence its therapeutical application under the accepted view of the phenomena of inflammation would be due to its primary action and in small doses; but I must confess that I have never been able to see its decided action on the circulation in the more acute inflammatory affections, and in the dynamic fevers its use is certainly contraindicated; whilst if the accepted view of the phenomena of inflammation is correct, we should endeavor to reduce the increased action of the circulation, and to diminish the temperature, which can only be done by paralyzing the vaso-motor nerves, and that action appertains *a fortiori* to veratrum.

The action of aconite is *par excellence* in febrile reactions with *peripheral nerve-pains*, in neuralgia involving the peripheral nerve-expansions, upon the local and dermal hyperæmia due to an arthritic diathesis; thus demonstrating its special and primary action on the spinal nerve-centres, by diminishing the hyperæsthesia.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, JANUARY 25, 1873.

EDITORIAL.

THE REPORT OF THE SURGEON-GENERAL OF THE NAVY.

SOME weeks since, we laid before our readers a summary of the leading points in the report of the Surgeon-General of the U.S. Army for the fiscal year ending June 30, 1872. We have now to notice the corresponding naval report, made by Dr. Thomas C. Palmer, Chief of Bureau of Medicine and Surgery, to the Secretary of the Navy.

The body of the report itself is composed largely of estimates for the fiscal year to begin July 1, 1873, and of recommendations in regard to matters connected with the service. The total disbursements to be provided for in the way of salaries, surgeons' necessaries and appliances, repairs and improvement of hospitals, civil establishment, contingent expenses, and printing and binding, are calculated at $196,868, against $168,732 for the present year.

Among the recommendations, the first seems highly reasonable, viz., that a profitable investment should be made of the hospital-fund (derived from a deduction of twenty cents per month from the pay of every officer, seaman, and marine), as in the case of the pension-fund. The hospital-fund amounted, on the 1st of October, 1872, to $73,910.04, which, according to the estimates, will be wholly inadequate to meet the expenses to which it would legitimately be applied. Judiciously invested, this sum might be very handsomely increased in a few years. We trust the requisite steps towards such an economical arrangement will speedily be taken.

To the next recommendation, that of the appointment of a search-clerk to attend to applications for evidence for the Commissioner of Pensions, we have only to object that it is too moderate: two or more clerks would probably find abundant occupation. In the document before us, two new hospitals are proposed, one at Portsmouth, N.H., at an estimated cost of $60,000, and one at Pensacola, Fla., to supply the place of the one destroyed during the war. Forty thousand dollars will be needed for the current repairs of the other hospitals.

Of special interest to medical men is the following passage:

"Finally, I have to implore, for the sake of our sick and wounded in line of duty, some increased facilities for purely naval education in our medical officers. The necessity of this is practically acknowledged and liberally provided for, almost to the reproach of this great nation, by foreign governments. We have official reports of those elaborate designs and developments, as presented in Appendix F" (presently to be noted). "We are shamed by them. We are reminded that *noblesse oblige*, and that the very grandeur of our country, and the pride of every citizen in it, demand at least as much cultivation in our officers as we familiarly find abroad. Every American travelling in Europe, and hailing, as we always do, the flag that represents our country, feels keenly then, what strikes him less forcibly at home, any exhibition of deficiency in his native officers. His pride revolts at the unavoidable and disadvantageous contrasts he is forced to acknowledge; so that it is familiar with us to say that if we could only once take some of our leading statesmen on a cruise, there would no longer be any difficulty in encouraging our ambition at least to equal, if difficult to excel, other nations. At home, even, we have the high example of the army, with its brilliant museum, and constantly increasing volumes of inestimable results of experience in war. The country is equally entitled to the literary and scientific labors of the navy; and its officers of all grades are eager to render them."

This passage, so far as we can understand it, is as laudable for its patriotism and its correct professional tone as it is deficient in logical sequence and argumentative force. Another paragraph much in the same style follows, and then this, which contains some curious things:

"To accomplish these ends, I propose the appropriation of $15,000 as the commencement of a school of instruction for medical officers preparing for promotion, *and as a receptacle for marine specimens in natural history voluntarily contributed;* a library; a lecture-room, with naval officers for teachers; a microscopical apparatus, *and various other appliances in*

familiar use everywhere except in our own land." (The italics are our own.)

It seems as if the Chief of Bureau must have entrusted the writing of his report to a clerk, and read the proofs carelessly, if at all. We earnestly hope his aims will be clearer to the Secretary of the Navy than the report would make them to any one previously ignorant of the matter in hand, and that they will be carried out as their importance deserves.

The appendix above referred to is an excellent account, taken from a report by Medical Inspector Shippen, of the Army Medical School at Netley, England, to which naval officers have this year been admitted.

The following statistics possess some interest:

"The average strength of the Navy—officers, seamen, marines, engineer service, and Coast Survey included—for the year 1871, as near as can be ascertained, was about 11,819.

"The proportion of cases admitted to the whole number of persons in the service was about 1.02, or each person was on the sick-list 1_{20}^{1} times during the year. The proportion of deaths to the whole number in the service was .01, and the percentage of deaths to the whole number of cases was .099, or less than 1 per cent."

OUR PUBLIC SQUARES.

EVERY autumn, the public squares of this city are closed, to be opened only late in the spring. Perhaps this is unavoidable, so long as the walks are laid with gravel; but it is none the less an absurd and grievous abuse. These parks ought to be perpetually available for invalids and children, and they could easily be made so by the laying of broad flagstones, or slate or asphalt pavements, or by in any way preparing the ground so that it would quickly dry after snow or rain.

Vastly greater expense than would be involved in such an improvement is yearly incurred by the city for far less important ends. The first cost would, after all, be the main thing; for the repairs from time to time needful for a well-laid flag or slate pavement would be but trifling, whereas the gravel has to be in fact renewed annually. We believe nearly or quite all the squares in New York have been laid with stone, and are open all the winter. As a measure for the public health, the same ought to be done in Philadelphia. Such an improvement would benefit all, rich or poor, who are now often precluded from open-air exercise by the state of the footways, and would give the squares double their present value.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

THE PRESIDENT, DR. D. HAYES AGNEW, in the chair.

A CONVERSATIONAL meeting was held December 11, 1872, at 8 o'clock P.M.

Dr. O'HARA mentioned a case of obstruction of the bowels preceding labor, continuing five or six days. There was peritonitis, which was followed by a discharge of pus from the vagina. The patient has since recovered.

Dr. W. L. ATLEE thought it probable that in the case mentioned, the obstruction in the rectum was the result of post-uterine pelvic cellulitis. This opinion was based upon the fact that the labor was severe and tedious, and that the obstruction was removed after the discharge of pus from the vagina. An examination before and after the existence of the difficulty might have shown the true cause.

Dr. Atlee had met with several cases of obstinate obstruction of the bowels. He could recall to mind one of particular interest: Saturday night, July 14, 1860, he was called to see Mrs. E. C., aged 50, in consultation with Dr. D. F. Condie. For two years she had been more or less complaining, and for three weeks before he saw her, she had suffered considerable distress in the bowels. Dr. Condie saw her for the first time on Friday, the day previous, and failed in having her bowels moved, everything having been rejected from the stomach.

The abdomen was greatly distended, very tense, and drumlike on percussion. The most tender point on pressure was in the region of the left iliac fossa, but no spot of special hardness or of dulness on percussion could be made out. She was suffering great distress from pain, constant vomiting, and excessive thirst. The pulse was full, soft, and about 100 to the minute. There was every indication of obstructed bowels, as in strangulated hernia. But she had never had hernia, although she had repeatedly had lighter attacks of a similar kind.

On making a particular examination, a slight enlargement was observable in both groins, but unaccompanied by hardness or tenderness on pressure. The protuberances rolled under the fingers very much as do small femoral herniæ. Neither of them was in such a condition as to give rise to the opinion that the source of trouble originated here.

Dr. Condie had given the patient fifteen grains of calomel in the evening, several hours before the period of consultation, and it was agreed to follow this up with alterative doses of the same medicine, adding opium suppositories, and turpentine stupes to the abdomen.

Sunday morning, the 15th, Dr. Atlee and Dr. Condie saw the case again. The symptoms were not relieved. On inspecting the groins again, a slight increase of the tumor in the right side was noticed, accompanied by a semi-resonant sound on percussion, but in other respects it was entirely unlike a strangulated bowel. Treatment continued.

Sunday night.—The patient not relieved. The thirst continued extreme, and the vomiting incessant. Pulse more frequent, but still full and soft, and skin normal. The tumor in the right groin rather larger, but not tight or sensitive. It was decided to cut down upon this tumor in the morning, if the patient was not better.

July 16.—The patient still not relieved, and the general symptoms worse. The wrists and hands were cold and of a purplish tinge, the pulse smaller and more frequent, and all the symptoms more alarming. Dr. Atlee cut down upon the tumor in the right groin, and a mass of fat of the size and shape of a small egg was

liberated from a peritoneal cyst. This was traced up to the crural ring, and found to protrude through it. He now scarified this mass of fat and tore it apart, but for some time he could find nothing like intestine. He next cut the edge of the crural ring on the outside, so as to enable him to liberate more of the tumor from the ring, when he found about an inch of the intestine protruding, and so incorporated with fat that it was difficult at first to recognize it as a portion of intestine. The excess of fat was now cut away, and the bowel was returned. The little finger was next passed through the crural ring into the peritoneal cavity, and no adhesions were detected within. The bowel had a normal appearance, very unlike one that had been strangulated. The wound was closed, and the patient ordered an anodyne and brandy.

The same night the patient was found in a state of collapse, and the obstructions not removed. The wrists and hands were quite cold and clammy, and the pulse exceedingly feeble. After the operation, the patient had a frequent desire to evacuate the bowels, but passed nothing. There was also constant regurgitation from the stomach. Dr. Atlee operated now upon the tumor in the left groin, and found a similar mass of fat protruding through the crural ring. This was also unravelled, but no intestine was found. It was excised, and the ring explored by the little finger. Ordered turpentine and castor oil by the mouth and by injection, with stimulants.

July 17.—Patient died at 12.30 A.M., there having been no relief from any mode of treatment.

Autopsy, twenty-two hours after death, by Dr. Drysdale, in the presence of Drs. Condie, Atlee, and Burpee. The abdomen was greatly distended, and resonant everywhere on percussion. The walls were well loaded with adipose and muscular tissue. On laying aside the flaps, there were observed no peritoneal adhesions indicating the previous existence of peritonitis. The colon was immensely distended throughout its whole extent from the caput coli down to the lower end of the sigmoid flexure. Its vessels were greatly engorged, and throughout its whole extent it had a dark mahogany color. The transverse colon, particularly, was enormous, its diameter being at least five inches. On tracing down the colon to a point opposite the promontory of the sacrum, the dilatation was found to terminate abruptly into a very contracted portion of the bowel, which was occupied by a scirrhous deposit, beyond which, clear to the anus, about seven or eight inches in length, the bowel was normal. The small intestines from one extremity to the other were contracted and free from disease. Not a particle of gas seemed to have escaped from the colon into the small intestines. The pylorus, however, was thickened and solidified, and its orifice contracted to about one-fourth its size. The stomach was filled with fluid.

The sigmoid flexure and rectum were removed for further examination. The contracted portion embraced but a very small portion, perhaps not an inch in extent, and consisted of cancerous deposit. The mucous coat of this portion was in a state of ulceration, and at a point close above the stricture the ulcer had perforated all the coats of the bowel, except the peritoneal, and this partially, so that a very slight pressure caused its rupture. The passage through the strictured bowel was so small as scarcely to admit the flat handle of the scalpel.

The right groin was next examined The edges of the wound had become agglutinated. Upon inspecting the crural ring from within, a small knob of fat was noticed, which evidently was a portion that had been returned at the time of the operation, and near this was a red patch, like an abrasion, but no opening in the peritoneum. The finger, when pushed through the ring from without, could be carried round in every direction without discovering an opening into the peritoneum, but when directed against the abraded surface the latter was found to be attenuated. This point had evidently been closed by a recuperative process after the operation.

The left groin was also examined, but there was no indication within that the peritoneum had been perforated.

Some small hydatids of a dark color were attached to the right broad ligament. Both ovaries were atrophied. The uterus was normal. The mesentery throughout was thickened and opaque.

Dr. Atlee referred to another case of obstruction, which had occurred in his brother's practice at Lancaster, when he was a pupil in his office. Mrs. S. had been treated by various means for ten or fifteen days without relief, when upon consultation it was decided to administer quicksilver. This in the course of two or three days had the desired effect. The obstruction was removed, the quicksilver passed through her, alvine evacuations followed, and her recovery was complete.

Dr. Atlee remarked that it had always been a mystery to him how quicksilver accomplished its passage through the bowels. As it has in itself no medicinal action, it must act in consequence of its great weight; and yet, when the several convolutions of the bowels are considered, it would seem to be under the necessity of travelling at times against gravity. He could understand how it might pass from the stomach through the small intestines, and through the ileo-cœcal valve into the ascending colon, by it at times becoming as it were a fixed point upon which the peristaltic or vermicular motion of the bowels could operate in drawing certain ascending portions over it. But in the ascending colon, which is so firmly fixed in position by the mesocolon, such a result could not be expected. Still, even here, a recumbent position of the body would aid its transit. If he were to administer this agent, he would order his patient to occasionally change the position of the body in order to facilitate its progress through the alimentary canal.

Another case, referred to by Dr. Atlee, also occurred in the practice of his brother. Mrs. H., a corpulent lady, died of irremediable obstruction of the bowels, and, upon making a post-mortem examination, a large gall-stone was found blocking up completely the valve of Bauhin, and producing all the effects of strangulation. The gall-stone had ulcerated through the coats of the gall-bladder and of the adjacent intestine, had entered the cavity of the latter, travelled through the small intestines, and finally lodged firmly against the valve, and thus obstructed the bowels.

Dr. Atlee referred to another case of death from obstruction of the bowel, which followed some months after recovery from an operation for strangulated scrotal hernia. He operated in the spring of 1845 at Mount Hope, Lancaster County, on Mr. G. S., for strangulated scrotal hernia. The bowel had been imprisoned for ninety-six hours, and when the sac was opened the bowel was in a state of sphacelus. The dead intestine was slit open, and the contents above were washed out. The patient recovered with an artificial anus, which, however, gradually closed, so that all the contents of the bowel were passed in the natural way. The succeeding autumn he went nut-hunting, and ate an enormous quantity of chestnuts, which, collecting in the vicinity of the injured bowel, caused an obstruction which resulted in his death.

In reference to hernia with sphacelated bowel, Dr. Atlee referred to another case. He had been called to see Mrs. J. F., on the night of September 30, 1849; she was in an apparently moribund condition, with a cold, clammy skin, and almost pulseless, the result of strangulated femoral hernia. She had been treated for several

days for colic by her brother-in-law, a homœopath. The symptoms becoming more and more urgent from day to day, a regular physician was called in two days before Dr. Atlee saw her, and, after having tried for two hours to reduce the bowel, left the patient and did not return. When he saw her, she was in such a hopeless condition that he did not encourage an operation. But the lady insisted upon an operation. It was done by gaslight, and the whole of the extruded bowel was gangrenous. She recovered slowly, with an artificial anus, and was able to sit up on the 29th of October. The parts were treated by applications of nitrate of silver and compresses, and the opening closed by the 29th of December following. This lady is now living in Norristown, and has enjoyed excellent health ever since.

While on the subject of hernia, he would refer to another case which he saw with his brother in Lancaster. A German woman had recovered from an operation for strangulated femoral hernia. Several days after danger seemed to have passed over, she was suddenly seized with peritonitis, and died. An autopsy was made, and a lumbricoid worm was found in the peritoneal cavity, and a round opening corresponding in size to that of the worm was discovered in that portion of the intestine which had been strangulated. The worm had evidently escaped from the bowel through this opening, and was the cause of death, after the patient's life had apparently been saved by the operation.

Dr. ATKINSON referred to the case of a minister, who, for the relief of a colic, by the advice of a "wise woman," swallowed a leaden bullet. The pain having been relieved, the clergyman began to experience doubts as to the passage of the bullet, and to calculate upon the probable results of its retention. But this trouble was soon, though not very agreeably, dissipated by an assurance from the old woman that it could not fail to pass, for the same bullet had already passed in some twenty other instances.

Dr. J. H. GROVE stated that the interesting and instructive remarks with reference to cases of strangulated hernia recalled to his mind a case which came under his care, in St. Mary's Hospital, more than a year ago. The patient was a man, aged about 40, with a strangulation of a large scrotal hernia of the right side; which occurred on a Saturday evening, about 9 o'clock. He was admitted into the hospital the following afternoon. He first saw him at 5 P.M. upon that day.

The scrotum was extremely œdematous and livid. There was crackling under pressure, showing commencing decomposition. His pulse was frequent and feeble. Skin cold, with clammy perspiration; and he had stercoraceous vomiting.

He learned that taxis had been applied for several hours. He immediately proceeded to operate, and found, upon opening the sac, that along with the intestine it contained a quantity of claret-colored fluid. The stricture, which was very tight, was at the internal ring. The intestine was of a dark-purple color; its walls were œdematous and soft.

After dividing the stricture, he pulled down about half an inch of the intestine, and found the arrest of discoloration quite abrupt at the seat of stricture.

While manipulating the intestine, owing to its fragile condition it gave way at three different points, two of which were only partly through its walls, causing considerable bleeding; the other rent was entirely through, by which a red-colored fluid spurted up in a stream about twelve inches high, so that it was caught in a basin.

He placed a ligature around each separate laceration, upon the sides of the intestinal walls, cutting the ligatures short and allowing them to remain. The intestine, with about half an inch of the healthy part drawn down, was allowed to remain in the scrotum, and the incisions were closed by silver sutures.

Peritonitis supervened; a large abscess formed in the scrotum. Other unfavorable complications occurred; but, notwithstanding all, he recovered without an artificial anus; and in four weeks from the time of operation he left the hospital cured.

Professor AGNEW asked whether the bowel did not remain irreducible.

Dr. GROVE said that, when he last saw the patient, only a small portion, corresponding with the incision, remained irreducible.

Dr. ST. CLAIR ASH said that he saw the case, and considered it a very interesting one.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, DECEMBER 26, 1872.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. J. H. CATHCART presented a specimen of *rodent cancer of the neck of the uterus*, removed from Mrs. Susan S., aged 33, married; had four children, the oldest 13 years and the youngest 3 years old. She had never had any trouble until eighteen months ago, when she began to suffer from severe pains in the back and loins. These were followed by a fetid watery discharge from the vagina, and by frequent and profuse hemorrhages. She consulted no one until about eight months ago, when she was examined by a physician, but was not treated. Dr. C. first saw her in September, and on examination found the cervix completely gone, and a large ulcer occupying the lower part of the uterus. The patient was slightly benefited by treatment which consisted in tonics and stimulants and in local applications, especially permanganate of potassa; but the doctor was obliged to desist from that part of the treatment, on account of the excessive pain caused by the introduction of the speculum. Her general health improved for some time, but frequent hemorrhages soon reduced her strength again, and she gradually sank, and died December 16.

On post-mortem examination the uterus was found in the condition presented. The entire cervix was destroyed, and the lower third of the body of the uterus. The vagina was not involved, nor was any other organ apparently affected.

Dr. JOHN ASHHURST, Jr., said, in reply to a question, that he was not disposed to regard the so-called "corroding ulcer" of the os uteri as identical in nature with the "rodent ulcer," or "Jacob's ulcer," met with in the face and other parts. The former affection, he believed, was generally acknowledged to be of an epitheliomatous character, and clinically malignant; but the structure of the "rodent ulcer" was still a matter of dispute,—Billroth, Moore, J. Collins Warren of Boston, and others, looking upon it as a true cancer, Collis of Dublin regarding it as analogous to the fibro-plastic tumor (spindle-celled sarcoma), and Paget finding in it no structures but such as are met with in ordinary chronic ulcers. While such diverse views thus prevailed as to the anatomical characteristics of the "rodent ulcer," Dr. Ashhurst thought that from its long duration, from its maintenance throughout of a strictly local character, from its not involving neighboring lymphatic glands, and from the permanent relief afforded by complete extirpation, it should be placed clinically among non-malignant affections.

DR. W. SINKLER has been elected one of the physicians to the Orthopædic Hospital and Infirmary for Diseases of the Nervous System.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY.

SEMI-MONTHLY MEETING, January 8, 1873.

Reported by JAMES S. BAILEY, M D.

DR. ALBERT VAN DERVEER, President, in the chair.

THE following-named gentlemen were proposed for membership: Drs. J. Emerson Allen, Almon S. Allen, and Frank Garbutt.

Dr. J. V. P. QUACKENBUSH offered the following resolution:

"*Resolved*, That the County Medical Society shall give an entertainment to the State Medical Society at its next annual meeting, and that a committee of six be appointed to perfect the arrangements." Carried.

The President appointed as such committee Drs. Quackenbush, James P. Boyd, John Swinburne, Freeman, M. P. Hun, and Wm. H. Bailey.

On motion of Dr. Quackenbush, the President was made chairman of the committee.

Dr. CHARLES DEVOL read a paper on the medical use of alcoholic stimulants.

Dr. THOMAS BECKETT inquired what authorities claimed that alcohol was not a nutrient and assimilant, and referred to his own experience in an attack of pneumonia; he had taken many pharmaceutical remedies—carbonate of ammonia, muriate of ammonia, etc., but nothing answered the same purpose as alcoholic stimulants, and he thought they could be taken without risk. The habitual use of other stimulants has produced evil results; and the fact that alcohol was not found in nature was no objection to it, since neither is morphia nor chloral, etc., but still they were excellent remedies, and could not be dispensed with. He thought no remedy of a stimulating nature answered so well in fevers as alcohol.

Dr. DEVOL thought that either chemistry or therapeutics would answer the question, and that in Dr. Beckett's case the effect he described was due to the other remedies he had taken.

Dr. BECKETT remarked that the other stimulants gave him headache, but whiskey did not; it relieved his night-sweats, and acted as a sedative and promoter of sleep. He thought alcohol did not increase the heat of the body.

Dr. JOHN SWINBURNE inquired of Dr. Devol what proportion among foreigners who drink intoxicants die from cholera. According to his observation, nearly all classes of English, Germans, French, and Irish drink gin, beer, or porter; he was of the opinion that those who did not drink were just as likely to take cholera.

Dr. DEVOL remarked that he had never been abroad, but he believed from statistics in his possession it was estimated that in England forty gallons of beer were drunk per man, and that Paris was more intemperate in the use of wine than any other city.

Dr. SWINBURNE remarked that in Europe liquor cost more than all the other expenses of living put together; that in Germany and France they drank light wine, but did not get drunk, and he believed that but a small part of the liquor imbibed was prescribed by physicians. He thought that in our cities the larger class of drunkards was not from the lower walks of life, but that children reared in the country came here and fell into intemperance; he contended that whiskey did not shorten life, its effects were only temporary. Old age and certain temperaments required it; some bore stimulants well in fevers, and some could not take it.

Dr. Swinburne, when asked in reference to the allowance of spirits in the French army, stated that soldiers had from a pint to a quart per day.

Dr. CHAS. S. HOYT referred to an excellent paper written by Dr. Coventry at the time of the cholera in 1853, and remarked that those most liable were not the intemperate, but those who were trying to reform. Alcohol is a sedative, and is used extensively in this capacity by physicians in lunatic-asylums, in certain forms of insanity, to compose their patients. It was considered indispensable. In cases attended by rapid wasting, it was very beneficial; it increased digestion, and when nutritious diet was given it prevented the rapid decline in flesh.

Dr. BLATNER'S experience, when a student at Leipsic, while cholera was prevailing, was that red wine was used by everybody, and recommended by the professors for its nutrient and astringent effects. Speaking German fluently, he mingled freely with the inhabitants, and scarcely met a drunkard, and he believed that in Berlin the poorer classes owed their lives to the use of beer. They were paid small wages, and lived on rye bread and beer, and immorality was not observed to result from the use of it.

After a recess for refreshments, Dr. LORENZO HALE read a paper on syphilitic paraplegia caused by gummy tumor in the spinal cord.

T. H. G., colored, aged 31, died with paraplegia. He had primary syphilis five years ago, was treated several weeks until ptyalized when first attacked, and from this circumstance discharged his physician.

He first consulted Dr. Hale in July, 1870, about two years before his death. There was a large irregular white scar on the prepuce; the meatus urinarius was elongated in the direction of the frænum, and indicated the site of the primary chancre. Sarcocele had existed for some months, both testicles being enlarged. He had fever, and pains in the limbs and joints and testicles, and complained of sleeplessness.

After several weeks' use of iodide of potassium, he resumed work, and temporarily there was a general improvement in the symptoms.

During the last year of his life there was paralysis of the right leg, which came on gradually. Six months before death he had facial palsy of the left side, of short duration.

He finally became bedridden, and was so feeble that he could not turn in bed. Sensation and motion in the left leg were impaired; upon pinching the right leg, no pain was felt; he could not distinguish the difference between heat and cold when applied to the limb; his mind often wandered. The iodide of potash was neglected, and he relapsed. There was incontinence of urine and of fæces for the last two weeks; two to three pints of ammoniacal urine were drawn off twice daily. There was ascites, and finally the paraplegia became complete on both sides. There was a cold sensation upon touching the body for one week before death.

Necropsy forty-eight hours after death. Body emaciated. The abdominal cavity only was opened; it contained no fluid. Bladder empty and contracted. Kidneys presented appearance of having passed the third stage of atrophy of the waxy kidney. The second, third, and fourth lumbar vertebræ and a corresponding section of the spinal cord were removed. The cord was congested, and a gummy tumor from three-eighths to half an inch in diameter was found lying in the substance of the cord opposite the third lumbar vertebra.

Ricord is of the opinion that gummy tumor never occurs earlier than six months, and usually during the seventh year.

Hammond says intra-spinal tumors may result from the syphilitic, scrofulous, or cancerous diathesis, and relates a case of paraplegia resulting from a supposed syphilitic origin, which was cured by the use of iodide of potash.

Durkee says that they have been found in the substance of the skin, and in the subcutaneous cellular

tissue and muscles, also in the tendons, epididymis, testicle, liver, lungs, brain, bones, etc.

The microscopical appearances of gummy tumors are thus described by Lebert. A thin section of the tumor is found to consist of loose fibrous tissue, made up of pale elastic fibres, including in their interspaces a homogeneous granular substance, the elements of which are less adhesive to each other than in deposits of true tubercle. The granulated cells or corpuscles do not exceed in size .005 of an inch. They are rounded, and contain an irregularly granulated substance; some of the larger corpuscles attain the size of .0075 of an inch, have pale and irregular walls, and appear to contain a rounded nucleus.

Dr. Wm. Morgan presented a pathological specimen of cancer of the womb, taken from a case that personally he knew but little of, as he was only called to see her about one week before she died. He had gathered the following history from her and her attendants before her death:

Mrs. ——, aged 56, Irish, married thirty years, had had one child. Nine months ago her disease was pronounced to be cancer of the uterus; Dr. M. was unable to learn how much longer she had suffered from this trouble.

When taken, she was a large, fleshy woman, and seemingly enjoyed good health; but after the appearance of the disease she had gradually grown thin, without having suffered much generally, though at times she had paroxysms of severe pain. She generally slept well, and had a good appetite until about ten days before her death. Her life was active, attending daily to household duties, and some days she took long walks to visit friends.

The discharge was constant for the last nine months, and was very offensive. Ten days before death, her left leg began to swell, and became twice its usual size.

The approach of death was manifested by the twitching of the voluntary muscles of the upper extremities. The legs seemed to be paralyzed. She lost the power of speech, and became comatose four days before death.

Necropsy, twelve hours after death.

No organs were allowed to be examined beyond the pelvis. The disease was scirrhus, and implicated the whole uterus; the os, neck, and about half of the body, particularly on the left side, were entirely destroyed by ulceration. The disease had then attacked anteriorly the inner wall of the vagina, which was greatly diseased. It also extended back to the exterior walls of the rectum, but no perforation was discovered into the intestine.

The President presented for inspection a specimen of mono-bromide of camphor, which has been used in Germany for the last ten years in mania a potu. Dr. Hammond, in the *New York Medical Journal* of May last, has written upon the subject. He uses it also in convulsions and nervous diseases; the dose is from one to four grains, repeated every two or three hours if necessary.

Dr. John V. Lansing presented pathological specimens illustrating pericarditis, which were remarkable for the thickening of the pericardium, which adhered to the walls of the heart so firmly that no movement could take place. This condition was caused by inflammation.

The kidneys indicated the second stage of Bright's disease. The pericarditis was not discovered until after death. The legs were enormously swollen, and when he was first seen his urine was albuminous. The heart-sounds were indistinct and irregular; there was no valvular murmur, and the sounds were indistinct.

The dropsy was supposed to be the result of Bright's disease. There was also œdema of the lungs.

Dr. Lansing asked whether this case was complicated by disease of the kidney, or was the heart-disease the primary affection brought on by taking cold by getting wet. There was no history of rheumatism; there was exudative matter thrown out on the tubules of the kidneys.

The Society then adjourned.

OBITUARY.

THE LATE SAMUEL L. HOLLINGSWORTH, M.D.

The few lines in which we announced the death, on December 14, 1872, of this estimable physician, contained a promise, which we now fulfil, of presenting a short notice of his life and character.

Dr. Hollingsworth was born in Philadelphia, May 22, 1816. His father was a prominent merchant, and descended, in the sixth generation, from Valentine Hollingsworth, who was a member of the first Provincial Assembly in 1683. After a thorough school education, he entered the freshman class of the University of Pennsylvania; but in the junior year of his course he was sent as supercargo in one of his father's vessels to Rio Janeiro. He afterwards remained in his father's counting-house until 1839, when he commenced the study of medicine in the office of Dr. George B. Wood, and at the University, where he graduated in 1842. He subsequently served as resident physician at the Pennsylvania Hospital and at the Wills Hospital, and became one of the visiting physicians of the latter institution. At the time of his death he was one of the attending physicians of the Girard College, a post which he held with great credit for twenty-four years. During the cholera epidemic of 1849 he had charge of the City Cholera Hospital. In all of these institutions he secured the good will of their governing bodies and amassed a large amount of valuable experience. In 1854 Dr. Hollingsworth became the editor of the *Medical Examiner*, and for three years performed the duties of his office with distinguished ability. His friends regretted that this congenial field of labor should then have been closed to him by the absorption of the *Examiner* in another journal, which, like it, has passed away.

Dr. Hollingsworth's love for the study and practice of medicine was, indeed, only equalled by his fondness for literary culture. His taste led him especially to historical works, and the graver subjects of current literature, as they are presented in the leading reviews and standard works of Great Britain. His mind was stored with the fruits of these excursions beyond professional fields, and his conversation never failed to give evidence of his intellectual riches by the seriousness of its tone as well as by the fulness and variety of his information. He was therefore listened to with attention, and his judgment was often appealed to in questions of historical fact and of literary opinion.

His views on all subjects were the more valued because they were felt to be sincere. Indeed, his love of truth for its own sake was perfect. For falsehood in every shape he had an instinctive hatred; he neither spoke nor acted it, nor could he tolerate in others any deviation from the simple and straightforward path, holding that no motive of self-interest can palliate a moral wrong. Hence, as became such a man, his conversation and actions were always pure, and his manners as simple and natural as they were courteous and kind.

Dr. Hollingsworth was one of the many men of merit who prefer the peaceful paths of life to a struggle for prominence in the world's thoroughfare. Neither professional nor any other form of public preferment tempted him away from his useful and happy, but un-

ostentatious, career. He found abundant satisfaction of his moral cravings in the domestic circle, in the study and practice of medicine, and in social intercourse with his professional brethren. He will long be remembered by them as an accomplished scholar and physician, a genial companion, and an upright man.

REVIEWS AND BOOK NOTICES.

CLINICAL LECTURES ON DISEASES PECULIAR TO WOMEN. By LOMBE ATTHILL, M.D. Univ. Dubl., etc. Second Edition, Revised and Enlarged, with Six Lithographic Plates and Woodcut Illustrations. Crown 8vo, pp. 241. Philadelphia, Lindsay & Blakiston, 1873.

OBSTETRIC APHORISMS: FOR THE USE OF STUDENTS COMMENCING MIDWIFERY PRACTICE. By JOSEPH GRIFFITHS SWAYNE, M.D., etc. Second American, from the Fifth Revised English Edition, with Additions. By EDWARD R. HUTCHINS, M.D. 12mo, pp. 189. Philadelphia, Henry C. Lea, 1873.

FŒTICIDE, OR CRIMINAL ABORTION. By HUGH L. HODGE, M.D. Fourth Edition. 18mo, pp. 55. Philadelphia, Lindsay & Blakiston, 1872.

THE USE OF THE SETON IN THE TREATMENT OF SOME CASES OF CHRONIC AFFECTIONS OF THE WOMB. By ELY VAN DE WARKER, M.D., etc. Reprinted from the *Journal of Obstetrics*. 8vo, pp. 16.

Dr. Atthill's work appears to be an exhibit of the experience and practice of the Adelaide Hospital, Dublin, and of the results of his own observations. It does not claim much, but its merits are very considerable. While we do not agree with all the views of its author, and are especially inclined to deprecate his advocacy of mechanical treatment by pessaries, we think no one will take up his book without interest and profit.

The second book in the above list is one, in our opinion, admirably adapted to be of service to the class of readers for whom it is designed. Unfortunately, recent graduates will be too apt to pass it by for more pretentious volumes.

Dr. Hodge's introductory lecture on Fœticide, first delivered in 1839, and again in 1854, has probably done much, in its former larger shape, towards the dissemination of just views of that grievous crime against society. We are glad to see a reissue of it; but we fear its influence will be lessened by reason of its insignificant appearance.

Dr. Van de Warker's idea, which, however, is not wholly new, is to establish, in certain cases of chronic hypertrophy of the uterus, drainage by means of one or more silk threads passed through the tissues of the os. The obstinacy of many of these cases would make the discovery of an effectual means of treatment a great boon to both practitioner and patient, and the plan in question seems to us to merit trial.

OUTLINES OF SURGERY AND SURGICAL PATHOLOGY, INCLUDING THE DIAGNOSIS AND TREATMENT OF OBSCURE AND URGENT CASES, AND THE SURGICAL ANATOMY OF SOME IMPORTANT STRUCTURES AND REGIONS. By F. LE GROS CLARK, F.R.S., Senior Surgeon to St. Thomas's Hospital. Second Edition, Revised and Expanded by the Author, assisted by W. W. WAGSTAFFE, F.R.C.S., etc.

This book, which is as concise as it could well be made, is as difficult to review as it would be to read continuously. It is intended for students of surgery as a sort of synoptical guide, and will doubtless be found of great use for this purpose. A careful examination of it enables us to endorse it as sound in every respect, and eminently worthy of recommendation to their classes by teachers of this branch of medical science.

BOOKS AND PAMPHLETS RECEIVED.

A Handbook of Therapeutics. By Sidney Ringer, M.D., etc. Third Edition. 8vo, pp. 576. New York, William Wood & Co., 1872.

Transactions of the Medical Society of the State of New York for 1870 and 1871. 2 vols. 8vo, pp. 429 and 490.

The Post-Office Directory of Chemists and Druggists; Including Chemical Manufacturers, Wholesale Druggists, Drysalters, and Patent Medicine Vendors, of England, Scotland, and Wales. To which is appended the Chemical Manufacturers and Wholesale and Retail Druggists in the Principal Towns in Ireland. Second Edition. Large 8vo, pp. 546. London, Kelly & Co., 1872.

The Nineteenth Report upon the Registration of Births, Marriages, and Deaths in the State of Rhode Island, for the Year ending December 31, 1871. Prepared under the direction of Joshua M. Addeman, Secretary of State, by Edward T. Caswell, M.D. 8vo, pp. 116. Providence, 1872.

Transactions of the Wisconsin State Medical Society for the Year 1872. Vol. vi. 8vo, pp. 169. Milwaukee, 1872.

GLEANINGS FROM OUR EXCHANGES.

STRICKER AND COHNHEIM (*Berliner Klin. Wochenschr.*, No. 41).—On the 15th of August, 1872, during the session of the Association of Naturalists and Physicians in Leipsic, Prof. Stricker made the following remarks in reply to the repeated attacks of Cohnheim:

Two of his pupils, after subjecting cartilage to severe irritation, injected cinnabar into the blood, and then discovered the foreign matter in the inflammatory points. In order to prove that such was the truth, Prof. Stricker presented a preparation in which particles of cinnabar were seen in the tissue of cartilage. Prof. S. requested the president to appoint several skilful microscopists to examine the specimen, and to testify as to the reliability of his statements.

Profs. Biesiadecki, Ackermann, Rollett, and Dr. Steudener were appointed, and they confirmed the statement already alluded to. Prof. Stricker then said that by destroying the ganglion of Gasser he had produced an inflammation of the cornea on the corresponding side. This could not have been caused by the entrance of dust into the eye, on account of the anæsthesia and patulency of the eyelids; for the other eye of the same animal was also exposed to the full effects of dust, by the destruction of its inferior nictitating membrane, but was not inflamed. The neuritis slowly passed away, and small nodules were formed, to which passed, from the edge of the cornea, small avenues formed of cells containing pigment.

Such a condition is important, because the pigment, which can come only from the eye, in this case, is found in cells which are not wandering white blood-corpuscles.

Hence the conclusion of Cohnheim that cells containing cinnabar, which are found in the inflamed cornea after this coloring-matter has been injected into the blood, are white blood-corpuscles, is incorrect, and consequently his theory is deprived of one of its chief supports.

Prof. Stricker, in conclusion, produced his specimen of traumatic keratitis, and requested Prof. Cohnheim to look at it. The latter gentleman said that he had had no intention of entering into the discussion, since a public assembly was no place to discuss the merits of a microscopic preparation. The question concerning the occurrence of cinnabar in inflamed cartilage possesses but little weight in the present discussion. For, since no one doubts that pus-corpuscles do escape in inflammatory processes, it is quite fair to presume that particles of cinnabar may be also conveyed to any part of the body affected by inflammation.

So far as the preparation from the irritated cornea is concerned, Prof. Cohnheim declined to consider it, or even to look at it. If the preparation were made according to this method, without doubt the corneal corpuscles could be seen intact. He could only advise Prof. Stricker to work in the future with more care and cleanliness, and to institute observations according to the prescribed method. In that event he would obtain the same results as he (Cohnheim) had. The present negative discovery proved nothing, and he was unwilling to relinquish his views.

Prof. Stricker said that, since Prof. Cohnheim had not seen the specimen of traumatic keratitis, all further debate was impossible. The number of adherents of a theory by no means proved its correctness.

It is usual to imitate the methods of those who go further in any investigation. He had discovered new methods; and the burden of proof now lies on the side of Cohnheim, who must imitate, and then admit or deny the truths he (Stricker) had declared.

Prof. Rindfleisch concluded the discussion by stating that, after repeated examinations of the specimen of intense keratitis, he had been able to discover the *stellate corneal bodies* in it. Their outlines, however, were quite indistinct, and they were very pale,—changes which may be due to saturation by the fluid in which they were placed. The *numerous apparently spindle-shaped cells*, Rindfleisch declared to be colorless blood-corpuscles which are situated in the finest vessels of the cornea, and which distend these vessels at the affected joints. The circumstance that these nutrient vessels of the cornea run from the spaces in the cornea mostly in the same direction, gives the impression that the apparently spindle-shaped cells which lie in them are also arranged in the same direction. Their number, however, four times as numerous as the true cells of cornea, forbids their being mistaken for altered corneal cells.

Malaria as a Cause of Renal Disease (*Am. Journal of the Med. Sciences*, Jan. 1873).—Dr. S. C. Busey, of Washington, D. C., after reporting three cases of renal dropsy (one of amyloid degeneration, one of desquamative nephritis, and one of hyperæmia of the kidneys) in children aged respectively 15, 9, and 4 years, makes the following remarks:

"These three cases present, in common, five phenomena: dropsical effusion, emaciation, marked anæmia, albuminuria, and lessened density of the urine, which point directly to disease of the kidneys. But was the renal affection primary or secondary? The determination of this question involves, mainly, the consideration of the cause. In Cases II. and III. it is manifest that the malarial cachexia was primary, and, though not absolutely demonstrated in the case of amyloid degeneration, it is fairly inferred from the history of the patient. There is nothing new in this sequence of disorders. Parkes affirms, from personal experience, 'that chronic Bright's disease is a consequence of ague.' Niemeyer says the 'poison of malaria' may cause Bright's disease. H. C. Wood, in a recent essay, published in this journal, enumerates malaria among the causes of albuminuria. Johnson maintains that the poison of fevers is eliminated through the kidneys, and, though not distinctly classing malaria among the causes, dwells with great pertinacity upon the casual relation of dyscrasiæ generally to Bright's disease. Stewart enumerates ague among the causes. Dr. Woodward, of the army, in his work on camp diseases, at page 185, in discussing 'chronic malarial poisoning,' says, 'Disorder of the kidneys frequently complicates the condition under consideration. Scanty, more or less albuminous urine is often observed, and these cases which occasionally perish with the symptoms of acute uræmic toxæmia not unfrequently terminate in chronic Bright's disease, with confirmed albuminuria, œdema, or general anasarca, and the whole train of symptoms of that disorder.' It is an accepted doctrine that any toxæmic condition of the blood, wherein the poisonous agent may be eliminated through the renal secretion, may produce some one of the forms of Bright's disease. This is demonstrated in cholera, scarlatina, rheumatism, erysipelas, measles, diphtheria, typhoid fever, pyæmia, syphilis, gout, and in exhaustive suppurative and carious affections. In all the dyscrasiæ the kidney complication is secondary, and perhaps no one of the cachexiæ is more marked in its pathognomonic characteristics or more fruitful in sequences than the malarial, none more destructive of the healthy constitution and nutritive qualities of the blood, and none more enervating. Besides the general phenomena which so manifestly distinguish the malarial cachexy, and which so markedly exhibit the effects of deficient hæmatosis, there are certain direct and immediate alterations produced in the character of the urinary secretion. Parkes has shown that the moment a paroxysm of malarial fever begins, the excretion of urea increases, such increase continuing during the algid and hot stages, diminishing during the sweating, and falling below the healthy standard during the intermittence; also that the uric acid is greatly increased during the fit. Ringer asserts that the quantity of urea corresponds to the degree of temperature; also that the chloride of sodium is greatly increased during the hot and cold stages, and that albumen is found, in a limited proportion of cases, during the fit, with blood and renal cylinders. McClean says, 'The blood is changed from the beginning of the attack, and, probably, for some time. The red globules and fibrin are diminished. The coagulum is larger and more flabby than that of healthy blood, much darker in color.' Aitken insists that 'an altered, defective, or contaminated state of the blood is the source of the morbid phenomena which follow.' Among the numerous causes of desquamative nephritis there is none more frequent than cold. Cold cannot act by lessening the temperature of the kidneys. The renal affection is secondary to the arrest of the cutaneous transudation and the determination of the blood to the internal organs. In the algid stage of intermittent fevers these conditions are superadded to the blood infections, and not only is augmented duty imposed upon the kidneys, because of the arrest of the functions of the skin, but their functions are impaired by the obstructive hyperæmia resulting from the interruption of the cutaneous circulation.

"Rokitansky, Walshe, Watson, Johnson, Aitken, and many others maintain that the various forms of Bright's disease find their cause in the quality of the blood sent to the kidneys, and that the *materies morbi* seeks its discharge through the secretory function of the kidneys.

"No age is exempt from nephritis. Rayer observed many cases from six months to one year. Noel reports a case eighteen months old; and Grisolle one a few weeks old."

Enucleation of Uterine Fibroids (*Am. Journal of Obstetrics*, Nov. 1872).—Dr. Thomas exhibited to the Obstetrical Society of New York, Oct. 2, 1872, a mass the size of a cocoanut, consisting of three fibroids which he had recently removed by enucleation. The woman, who was a patient of Dr. H. Moeller, had suffered for some months from excessive menorrhagia. When seen by Dr. Thomas, the uterus was found to be as large as at the fifth month of gestation; the cervix was found well dilated, and a large fibroid presenting, which, on examination, proved to be sessile, and attached posteriorly. The patient lying upon her back upon a table, Dr. Thomas proceeded to enucleate by cutting through the capsule of the tumor with scissors, and then insinuating a grooved steel sound under the capsule, which he separated as far as possible from its attachments. Traction was then resorted to, combined with powerful expression from above, which resulted in the extrusion of a large mass in about forty minutes; another mass was felt above the one extracted, which was in like manner removed; traction then being made upon the capsule, it came away, having attached to it a still smaller tumor. There was very little hemorrhage. Opiates were given, and intra-uterine injections of carbolic acid were daily used. The patient did well for four weeks, though she now has a mild attack of phlegmasia dolens, from which she has suffered once before as a sequel to parturition. This is the sixth case in which Dr. Thomas has resorted to enucleation, in all of which the recovery has been perfect. He has, however, lost two cases in the preparatory treatment by sponge-tents. Dr. Thomas considers the operation in its results more formidable than ovariotomy.

Dr. Peaslee agreed with Dr. Thomas in the operation being more dangerous than ovariotomy, though it looks so simple. It is always dangerous to operate while the tumor is in the uterus, though where danger exists from menorrhagia the operation is perfectly justifiable.

Dr. Sims thought the removal would be facilitated by the patient being in the left lateral semi-prone position, and instanced a case where he had effected the removal of a tumor in twelve minutes.

Dr. Thomas, in reply, said that he had removed tumors in less time than that mentioned by Dr. Sims, and he considers the dorsal position better, as expression can be so efficiently brought to bear.

Chloroform as a Solvent for and Means of Separating Poisonous Vegetable Substances in Forensic Investigations.—The *Journal of Applied Chemistry* for December, 1872, says, "Nowak has instituted a series of experiments which prove that chloroform quickly and perfectly extracts the following long list of vegetable substances from alkaline solutions, viz.: Strychnia, quinia, quinidia, cinchonia, caffeina, theobromina, emetia, atropia, hyoscyamia, aconitina, veratria, physostigmia, narcotina, codeia, thebaina, nicotina, and conia. It dissolves brucia, colchicia, and papaverina more slowly. Sabadillia is only taken up by it when warm, while narceia is taken up from alkaline solutions in small quantities only. Picrotoxin is acted upon by chloroform more readily from acid than alkaline solutions. Morphia and solania do not dissolve in chloroform, either from acid or alkaline solutions.

"Further experiments also show that all those substances which are taken up by chloroform from aqueous alkaline solutions are again given up by it on shaking repeatedly with acidulated water, while fatty and other foreign substances mixed with them remain in the chloroform. A systematic course of search for poisonous vegetable substances, founded upon the above facts, was instituted, and its practicability tested by actual experiments as follows: A weighed quantity of different poisons was mixed with pieces of flesh selected for the purpose, and then tested for. The results obtained showed that in many cases the whole quantity of the poison mixed with the flesh was recovered, and in most cases the greater part was found. The results gave general satisfaction, especially on account of the great purity of the alkaloids obtained from the chloroform, so that the reactions for identifying them could be made at once."

Limits of Normal Bronchial Breathing (*Berliner Klinische Wochenschrift*, No. 41, 1872).—According to a series of investigations made upon 216 persons of various age, sex, and avocation, by Lippe, the assistant in the clinic at Dorpat, the following laws may be laid down:

1. Bronchial breathing is always to be heard in the region of the seventh cervical vertebra (in some rare cases it is heard only here), but usually it is heard more or less extensively below this point.

2. Below this point it is heard in the rarest cases only, on the right side of the thorax (four times in 213 cases). The rule is to hear it on both sides.

3. The extent of bronchial breathing stands in an inverse ratio to the difference between the circumference of the chest and half the length of the body. In the first four decades of life, a gradual increase of this difference occurs, and on the other side a gradual decrease of the bronchial breathing. In the later years of life the extent of the latter increases, while at the same time the difference diminishes. With the sixtieth year of life the bronchial breathing has again reached the same limit as in the first decade of life.

Cholera.—According to the *Wiener Mediz. Presse* of Nov. 3, 1872, this unwelcome visitor had made its appearance in Hungary and Eastern Austria, moving westward. In Ofen, Hungary, between the 13th and 25th of October, 126 cases of cholera had appeared, of which 29 proved fatal. In the garrison of the same place there were 29 cases, of which 5 died. In Pesth, 4 cases had appeared at the time the communication was made. In Lemberg, near Vienna, 140 cases occurred between September 23 and October 23, 1872, of which 40 died. The Emperor of Austria has caused every precaution to be taken in order to prevent its coming to Vienna.

Double Amputation by Pirogoff's Method.—Dr. J. Lizars Lizars, of Toronto, reports in the *Canada Lancet* for January, 1873, a case of railroad injury, in which he removed both feet of a French Canadian, aged 28 years, by the above-mentioned procedure. One operation was performed on October 24, and the other on November 3, 1872. On the 4th of December the patient was doing well.

Dr. L. justly remarks on the propriety of dividing the os calcis, in this operation, in a direction downwards and forwards, instead of directly downwards; the former plan bringing the subsequent pressure more on the thick skin of the heel.

"Open-Air" Treatment of Hooping-Cough.—In the *Glasgow Medical Journal*, Dr. McLean strongly advocates this plan of treatment, which consists in keeping the little patient as much as possible out-of-doors in the open air. He does not consider this plan of treatment as a specific in every case of hooping-cough; but it is one which, in the hands of a judicious physician, can be made of immense utility, and even in certain complications can be adopted with safety.

MISCELLANY.

Eating Dirt.—It is a common opinion that even in the most civilized communities it is not easy to avoid one's peck of dirt; and some individuals manifest quite a peculiar talent for it, and go through the operation with a readiness and grace which seem to imply a suppressed inclination for the practice. Dr. Frank Galt, of Iquitos, Peru, describes quite a devouring passion for it to prevail among the mestizoes, or half-breeds, of the Upper Amazon. His account is very interesting. Dirt-eating becomes an irresistible passion.

"Even strangers, English, or the white Peruvian, who have married with the mestizo, and have had children by them, find its presence among the little ones the plague of their life; and the accounts one hears about the tyranny of this habit of dirt-eating on the victims of it would seem almost fabulous, were there not evidences all around one to give sanction to them. Children commence the habit from the time they are four years old, or less, and frequently die from the results in two or three years. In other cases, they grow to manhood or womanhood with the 'appetite growing by what it feeds on,' and I have seen here myself, in the case of a mestizo soldier, who was dying from the dysentery which generally, sooner or later, supervenes on this habit, the poor creature, half an hour before his death, detected with a lump of clay stuffed in his sunken cheeks, which he had dragged from the wall near where he was almost breathing his last. Officers here who have the Indian or half-breed children as servants in their employ sometimes have to use wire masks to keep them from putting the clay to their mouths; and women, as they lie in bed sleepless and restless, will pull out pieces of mud from the adjoining walls of their room to gratify their strange appetite, or will soothe a squalling brat by tempting it with a lump of the same material. If persisted in, the effects are surely fatal, at varying terms of years, some living tolerably to middle age, and then dying with dysentery, or from that disease at an earlier period. In the children dropsy is usually the most prominent apparent cause of decline and death."

A project is on foot to resume the publication of a Hospital Gazette in Dublin, containing only original scientific matter. It would be published twice a month, would consist of sixteen pages only, and would be issued at an annual subscription of half a guinea.

Mr. Holmes Coote.—The *British Medical Journal* of Dec. 28 says, "We have to chronicle the death of Mr. Holmes Coote, Senior Surgeon and Lecturer on Surgery of St. Bartholomew's Hospital, at about the age of fifty-six. It is seldom that so sad a fate has to be recorded of a man occupying an eminent position in a learned profession. While actually surgeon and lecturer on surgery at St. Bartholomew's Hospital, this unhappy gentleman breathed his last this week in a public lunatic-asylum, and has left his family destitute. Incipient brain-disease, brought on, probably, by the pressure of anxieties and misfortunes, had interfered with Mr. Coote's professional pursuits, although, until the last few months, not disabling him from attending to his hospital work. The kindness of his colleagues in performing his duties has enabled him to retain lately the title and emoluments of an office of which he at last became unequal to the duties. Mr. Coote began life under circumstances of great promise. A skilful anatomist and an active teacher, a surgeon of some fertility and resource, not unskilled in the use of the pen or disinclined to use it, well placed at one of our great hospital schools, his friends anticipated for him a brilliant career. Mr. Coote filled with credit many offices of importance. Besides taking a large and useful share in educating successive annual generations of students, he served in the Crimean hospitals with honor, and has since held office as one of the Commissioners under the Contagious Diseases Acts, and as an Examiner in Surgery of the Royal College of Surgeons. His contributions to Holmes's 'System of Surgery' were respectable, and his earlier anatomical writings (one of which received the College Triennial Prize in 1845) were of some repute. A career so well begun was sadly and even tragically ended. His friends and pupils, remembering his many good qualities, will not, it may be hoped, be slow to render kindly and seasonable aid to his family."

Curious Freak of Nature.—The description of the hairy family at Mandalay, whom the king will not permit to leave his dominions, with pleasant allusions to Darwin, has lately been going the rounds of the medical press. A correspondent of the *London Times* furnishes some additional information. He writes, "When I was at Mandalay in '59, I saw the same woman and three of her children. The eldest and youngest were hairy, like their mother, while the second, like his father, presented no such peculiarity. The husband was a man who, report said, had been induced to wed this woman to become possessed of the marriage-portion which the King of Burmah had promised to bestow upon her on her bridal day. The bridegroom was a plucky fellow, at any rate, though his motives may have been somewhat mercenary. The hairy woman had a pleasant, intelligent face,—there was nothing whatever repulsive in it. The hair on the face and breast was several inches long; on the forehead it was parted in the middle and blended with that of her head. Of a light brown color on her cheeks, it paled gradually towards the bridge of her nose and the centre of her lips, chin, and neck."

Social Evil Hospital, St. Louis, Mo.—The site for this new hospital, designed for the reception of fallen women, has been selected by the board of health of St. Louis. The inauguration of this institution is the climax of a system that some two years ago received the sanction of the authorities there, and which, since then, has been carried on with all the vigor and inflexibility of other established laws,—the registration of abandoned women, their examination by a staff of

physicians, and their payment of weekly and monthly dues. The regular weekly payment of a dollar and a half by each courtesan, and fourteen dollars monthly from each keeper of a house of ill-fame, has resulted in the accumulation of many thousand dollars, which is now being appropriated, in accordance with the requirements of the law, for the treatment of these women.

DRESSER'S ENGLISH IN INDIA.—The *British Medical Journal* says, "Notwithstanding the improvement in the education of native medical pupils, it appears that dresser's English in India is still something of the same kind of dialect as pigeon-English in China. The *Madras Medical Journal* prints the following specimen of a medical certificate given by a hospital assistant to a patient who had his teeth loosened by a blow on the mouth:

"'I do hereby certify that the Village Moonsiff —— of —— aged about 45 was found on my examination suffering from shaking of 2 front upper teeth, and 4 front lower teeth and besides several other teeth also in a slight shaking state. I consider that the shaking appear to have been caused by another individual, or by fall, or by natural and previous administration of cruel mercury. I am of opinion that the hurt is not a mortal.

"'(Signed) ———, *2nd Class Hospl. Asst.*'"

A MYSTERIOUS CASE.—The following item appeared in a recent issue of the *New York Tribune:*

"Coroner Keenan was asked yesterday afternoon, by Dr. Charles P. Russell, Registrar of the Bureau of Vital Statistics, to hold an inquest on the body of Elizabeth Taylor Church, wife of Dr. E. P. Church, of No. 629 Ninth Avenue, who died January 5, 'from abscess of the right lung, caused by an injury inflicted with a wire by the deceased during an attempt to produce an abortion upon herself.' Dr. Russell stated that an autopsy by Prof. T. Gaillard Thomas, of the Twenty-third Street Medical College, and Dr. Charles S. Ward, of No. 61 Macdougal Street, had 'revealed the presence of a wire about twenty inches long,' which had passed upward through the peritoneal cavity and penetrated the lung."

DR. B. HOWARD says, in the *New York Medical Journal* for December, 1872, that within six years from its formation the Humane Society of Amsterdam reported the recovery of two hundred persons. Mr. Alexander Johnson, in a report to the Humane Society of London, states that from 1774 to 1787, a period of thirteen years, eight hundred and ninety-seven instances of resuscitation occurred in London alone. According to the report of Monsieur Pia, the superintendent of the Establishment for the Recovery of the Drowned in Paris, during the sixteen years subsequent to 1772 eight hundred and thirteen persons, apparently dead from submersion, were completely restored; one hundred and twenty cases only having been treated unsuccessfully.

ON A RESURRECTIONIST.—The following lines have their own historical interest, as relating to a past state of things which concerned anatomical students, and are worthy of a place in our columns, if only for their epigrammatic wit and finish. They appear in *Blackwood's Magazine* for November, 1872:

"Here lies an honest man, my brothers,
Who raised himself by raising others.
Anxious his friends from soil to save,
His converse still was with the grave.
To rescue from the tomb his mission,
He took men off to the physician;
And strove that all, whom death releases,
Should rest, if not in peace, in pieces.
So here he waits his resurrection,
In hopes his life may bear dissection."

THE cause of the ex-Emperor Napoleon's death was stated in one of the daily papers to have been embolism, "caused by the intercallations of the electric currents in the operation of lithotrity."

THE many friends of Dr. Wilmer Worthington, of West Chester, will be glad to know that he is at present much better, and that hopes are entertained of his recovery.

PROF. R. VON JAGER has received the Order of the Crown, of the third class (Prussian), and the Order of St. Michael, of the first class (Bavarian).

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending Jan. 18, 1873, were 325; 179 adults, and 146 minors. 6 were of bodies brought from the country; making the mortality of the city 319. Among the causes of death were:

Consumption of the Lungs	41
Other Diseases of the Respiratory Organs	65
Diseases of the Circulatory Apparatus	18
Diseases of the Brain and Nervous System	50
Diseases of the Digestive Apparatus	17
Zymotic Diseases (one from Smallpox)	29
Typhoid Fever	8
Casualties	3
Cancer	4
Gangrene	4
Suicide	1
Debility (including "Inanition" and "Marasmus")	31
Still-born	16
Old Age	11

The following may be specially noted: *Caries of the liver*, 1; dyspepsia, 1; rupture of the heart, 1; rupture of the uterus, 1.

(The interments reported for the week ending Jan. 20, 1872, were 503.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER.		BAROMETER.
	Max.	Min.	(2 P.M.)
Jan. 12	28.0°	17.0°	30.62 in.
" 13	42.5	29.0	30.34 in.
" 14	45.5	34.0	30.34 in.
" 15	35.0	31.0	30.65 in. (Rain.)
" 16	59.0	37.0	30.15 in. (Rain.)
" 17	54.0	33.0	30.01 in.
" 18	34.0	31.0	29.92 in. (Rain.)

SATURDAY, FEBRUARY 1, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

LECTURE I.

(Continued from page 259.)

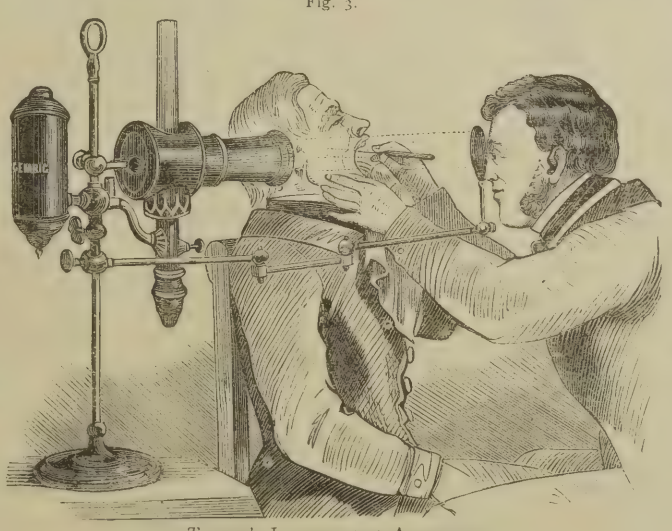
ILLUMINATION BY SUNLIGHT.

DIRECT sunlight is available only during a certain portion of the day. When this direct illumination is impracticable, we may reflect the light to a convenient point by means of a tilted piece of looking-glass; or we may concentrate the diffused daylight in the apartment upon a concave mirror, and reflect it thence into the mouth of the patient.

ARTIFICIAL ILLUMINATION.

This may be direct or reflected, and the rays of illumination may be concentrated by means of lenses. Reflected light is much more easily managed. The reflector is often used attached to the head of the examiner. Many — and the lecturer among them — prefer to use an apparatus in which the reflector is permanently attached to the lamp; and of all those in use — many of which were exhibited and explained — he prefers the illuminator of Tobold (Fig. 3).

Fig. 3.



TOBOLD'S ILLUMINATING APPARATUS.

The source of illumination is a coal-oil lamp, or an argand gas-burner, capable of being set at any elevation upon the support, and of being changed at will. This is surrounded by a tube containing a series of three condensing lenses for increasing the light. The reflector is attached to the illuminating apparatus by a jointed, movable arm. In using this apparatus, the flame should be placed about on a level with the patient's mouth.

This apparatus has been rendered more convenient for constant use, by taking the support from the floor and suspending the reflector above the lenses. Such an arrangement keeps the supporting arm out of the way of the left hand, when operating upon the larynx. The source of light is an argand gas-burner, fed from a convenient bracket or pendant, by means of flexible tubing. This adaptation of the Tobold lamp (Fig. 4) leaves but little to be desired in the way of illumination, and has gradually come into general use in this country.

In employing artificial light, the room is darkened somewhat, so as to exclude any excess of daylight which would interfere with the artificial illumination.

AUTO-LARYNGOSCOPY.

This is the term used to designate one's examination of his own larynx, which is done by performing the operation before a toilet-glass or hand-mirror. It is especially valuable in familiarizing one's self with the laryngo-pharyngeal image, and in studying the various physiological phenomena of respiration, vocalization, etc.

DEMONSTRO-LARYNGOSCOPY.

This term is used to designate the demonstration of the larynx to others, which is best done by placing a hand-mirror in the grasp of the patient, or a small mirror obliquely in front of his mouth.

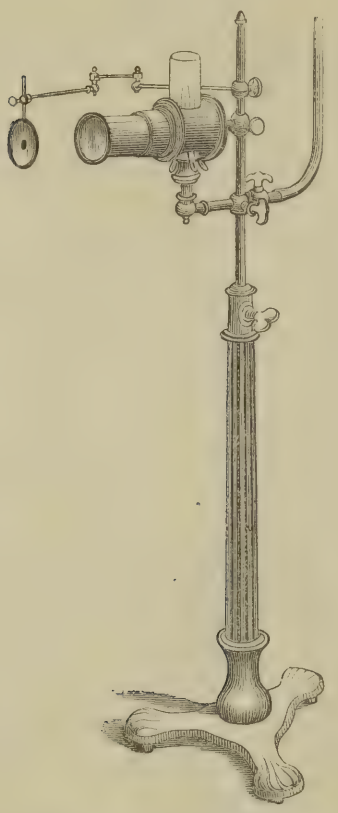
THE STRUCTURES THUS SUBJECTED TO OBSERVATION.

The structures most prominent in the mirror are, normally, the epiglottis, the cartilages of Santorini, and the vocal cords: they are readily recognized; but many other important parts are reflected, which are not easily located until some familiarity has been acquired in laryngoscopic examination. It is the same as in the cultivation of observation under the microscope; many things are recognized, as we grow accustomed to the use of the microscope, which we did not detect before, although they were in the field all the time.

The structures thus exposed to inspection are, from before backwards: the posterior portion of the base of the tongue; the posterior surfaces of the anterior palatine arches, and their attachments to the sides of the base of the tongue; the lateral ligaments connecting the tongue with the hyoid bone; the ligaments connecting the tongue with the epiglottis, and the lingual sinuses between the middle glosso-epiglottic ligament and the two lateral ligaments or folds; the tonsil glands; the posterior palatine arches, as they run downwards and backwards to be lost in the sides of the pharynx; the ligaments

connecting the epiglottis and pharynx; the lateral ligaments connecting the epiglottis with the hyoid bone; the epiglottis itself, its anterior or lingual surface, its upper and lateral borders, and its posterior or laryngeal surface; the ligamentous folds of mucous membrane connecting the sides of the epiglottis with the arytenoid cartilages, and forming the upper portion of the quadrangular membrane of the larynx; the arytenoid cartilages, with the cartilages of Santorini at their apices, imbedded in

Fig. 4.



Tobold's Illuminating Apparatus, supported from Floor, fed with Gas. Reflector attached above, instead of below.

sub-mucous cellular tissue; the base of the cuneiform or Wrisberg cartilages, enclosed within the ary-epiglottic folds, a few lines from their arytenoidal extremities; the fold of mucous membrane between the arytenoid cartilages; the pear-shaped sinuses just outside of the laryngeal cavity, comprising the space between the exterior surface of the quadrangular membrane of the larynx and the inner surface of the thyroid cartilage; the posterior wall of the pharynx, as far down as the position of the cricoid cartilage, where the entrance into the œsophagus appears as a narrow groove communicating with the pear-shaped or pyramidal sinuses; the upper cavity of the larynx and its component structures; the vocal cords, and above them the ventricles of Morgagni; the ventricular bands, known as false vocal cords, above the ventricles, and formed on each side by a duplicature of the laryngeal lining membrane; a portion of the lower cavity of the larynx, and the internal face of the anterior portion of the thyroid cartilage, cricothyroid membrane, and cricoid cartilage; the anterior portion of the trachea, to a greater or less extent, and, under very favorable circumstances, clear down to the bifurcation of the tube; and, in a few cases, more or less of the continuity of the right bronchus; under peculiar circumstances, more or less of the posterior wall of the trachea.

Such are the structures which the laryngoscope enables us to examine in the living subject. It is impossible to bring all the tissues enumerated into one and the same view; but by altering the direction of the mirror, a little forward or backward, to one side or the other, the light can be reflected upon all these structures in succession, and their condition observed. In moving the mirror, or giving it a further inclination to one side or the other, we must avoid any tremulousness. It is this constant hitting of the parts that provokes spasmodic contraction. A decided, though gentle, pressure upon the parts is borne much better. It is for this reason that the recommendation has already been made to rest the lower edge of the mirror upon the posterior wall of the pharynx. In this way we avoid titillation of the parts, which is so apt to ensue when we follow the rules laid down by several laryngoscopists, to avoid touching the soft palate, and particularly the pharynx. The only part to avoid is the base of the tongue, contact with which induces retching.

RHINOSCOPY.

In the rhinoscopic examination, we turn the reflecting surface of the mouth-mirror upwards, so as to illuminate the upper portion of the pharynx and the posterior outlet of the nasal passages. The same apparatus and sources of illumination that are employed for laryngeal examinations are also applicable in rhinoscopy; but the tongue, instead of being protruded, must be held down, in most cases, by some suitable tongue-depressor. The patient must be instructed how to regulate his respirations by breathing through his nostrils. The rhinoscopic mirror must generally be of a smaller size than that employed for laryngoscopy. It is generally attached at right angles to the handle; but the lecturer prefers to use the ordinary small laryngoscopic mirror. Often there is more or less approximation of the soft palate to the posterior wall of the pharynx, and the view is thus limited or rendered impossible. To increase the naso-pharyngeal space, variously-shaped tractors, hooks, and snares have been resorted to; but their presence usually gives rise to so much irritation that the soft palate is spasmodically drawn up against the pharynx. Their use has generally been abandoned, except in rare cases. In the performance of operations, the palate can sometimes be held up by tapes carried through the nasal passages by Bellocq's canula and tied over the upper lip; but even this manœuvre cannot be long tolerated.

ORIGINAL COMMUNICATIONS.

THE LOCAL TREATMENT OF CANCER OF THE FEMALE GENITALS—CASE OF PRIMARY CANCER OF THE VAGINA.

BY JOHN S. PARRY, M.D.,

Attending Accoucheur to the Philadelphia Hospital, etc.

Remarks made before the Pathological Society of Philadelphia, November 14, 1872.

AT the last meeting of the Society I presented a specimen of cauliflower cancer, which had been removed from the os uteri of a mulatto woman thirty years old. At the same time attention was called to the fact that the operation for removal had been postponed for three months on account of the great prostration of the patient, and that Dr. J. H. Cathcart, who had charge of the woman, and with whom she was seen in consultation, had scraped away almost the whole of the morbid growth, an operation which was followed by the most marked improvement in the condition of the patient. For eleven weeks before this she had been confined to her bed, having become greatly emaciated and profoundly prostrated by the profuse hemorrhages from which she suffered. The growth at that time filled the upper part of the vagina, pressed back upon the rectum, nearly obliterating the calibre of that canal, and extended downward almost to the vulva.

After the removal of all of the morbid tissue which Dr. Cathcart could tear away with a blunt instrument, the flow of blood entirely ceased, her bowels, which had before been constipated, became regular, her appetite improved, and she rapidly gained both flesh and strength, so that three months later she would hardly have been recognized as the same person, so great was the improvement. Indeed, to all appearances she was in perfect health. She pursued her ordinary avocations, went about the city as she pleased, and was strong, cheerful, and happy.

At the time the specimen was presented to the Society, it was stated that, so far as we knew, this unusual procedure of Dr. Cathcart's was without precedent, and that from the results of the case we had reason to hope that it marked a new era in the local management of malignant disease of the female genital organs. The affection is at best a desperate one, and gynæcologists have been led to adopt a purely expectant local treatment, because the manipulations necessary to make applications may be followed by serious and, possibly, even by fatal hemorrhage. But since the last meeting of this Society no less than three important papers have appeared upon this subject. The first is by Dr. Munde,* the second by Prof. A. R. Simpson, of Edinburgh,† and the third by Dr. Alfred Wiltshire, of London.‡ Though the second paper reached America before that of Dr. Munde, owing to the delay in the appearance of the *American Journal of Obstetrics*, and though Dr. Cathcart performed his operation in June last (1872), the priority of suggestion must be awarded to Prof. Simon, of Heidelberg.

During the last two weeks we have had another opportunity to try this method of treatment; and the portions of the growth which were removed are now exhibited to the Society. Though this specimen itself possesses but little interest, the case is an unusual one, inasmuch as the vagina was the organ primarily involved. The patient was a light mulatto woman, about thirty years old, who was admitted to the Presbyterian Hospital a few weeks ago. She is the mother of four children, the youngest of whom is eight months old. She had always been a healthy woman until about six months before the birth of her last child, when she began to suffer from severe pains in the pelvis. Her labor was normal. She remained in bed for two weeks, and then got up, feeling as well as usual. For two weeks everything went well, when she had a hemorrhage from the vagina. From that time until her admission to the hospital she lost more or less blood every day. At times the discharge was very profuse. It was brought on by the slightest exertion. She became greatly exhausted, much emaciated, suffered from severe pelvic pain, frequent as well as painful micturition, and painful defecation. Two weeks before admission she lost the power of retaining her urine.

Her condition when she entered the hospital in November, 1872, was as follows:

She was greatly emaciated, with a clean, pale tongue, poor appetite, occasional vomiting, constipated bowels, and great pain when they were moved. She complains of severe abdominal and pelvic pains. The belly is not distended, and it contains no tumor. There are no pulmonary or cardiac symptoms.

Vagina.—Immediately within the vulva the finger comes in contact with a ragged, rough, but rather soft tumor, which breaks down easily and bleeds freely when pressed upon. In front of the tumor the finger passes upward about an inch and a half, when the growth is found to be attached to the anterior wall of the vagina. A catheter introduced into the bladder is easily distinguished below the growth; but the anterior vaginal wall is found to be considerably thickened. Above the tumor the cervix uteri is distinguished with some difficulty, and is in the usual situation. The posterior lip seems to be quite smooth, but the anterior is rough and covered with short, irregular outgrowths, which break down under pressure. Immediately below the cervix is the best developed or highest portion of the upper margin of the tumor. Below this is a depression, at the bottom of which the silver catheter in the bladder can be felt. Through this somewhat funnel-shaped opening two fingers can be thrust directly into the bladder. The fundus of this organ is easily reached a little above the upper margin of the opening, while the inner orifice of the urethra is scarcely an inch below the lower one. The posterior and lateral portions of the vagina are not involved. A profuse discharge of blood and thin offensive pus runs from the part. Upon separating the labia, some sloughs are to be seen protruding, and above these is the red, soft, warty tumor which the patient says protrudes when she stands for a little time or strains forcibly.

Though the patient was very weak, and though

* *American Journal of Obstetrics*, August, 1872.
† *British Medical Journal*, October 19, 1872.
‡ *British Medical Journal*, November 2, 1872.

we could not encourage her to hope for more than very temporary relief, it was determined to scrape away all of the morbid growth which could be removed. Being provided with a blunt bone-scraper, an ordinary director with an expanded extremity, a pair of long vaginal scissors, and some Monsel's salt, the procedure was begun. These instruments were but poorly adapted to effect our purpose, and we would suggest that gynæcologists who propose to repeat the operation should provide themselves with a set of Prof. Simon's scoops.* Most of the growth was removed with the bone-scraper and the finger, a Sims' speculum having been introduced into the vagina and a catheter into the bladder, the woman being placed in the semi-prone position. As the operation proceeded, the hemorrhage, instead of increasing, diminished in quantity until we attempted the removal of one of the large masses near the vulvar orifice. Experiencing some difficulty in breaking this down, the pedicle was severed with the scissors. An artery of considerable size was opened, and she bled quite freely. Upon the application of the torsion-forceps the tissue broke down, until more healthy structure was reached, when the flow ceased, after giving the artery a twist. The scraped surface was now covered with Monsel's salt, and a damp sponge, with one side covered with the same substance, was passed into the vagina and allowed to remain there for about four hours. No hemorrhage or abdominal pain or tenderness followed. She remained under observation for nearly two weeks longer, when she was discharged. During this time she seemed to be much better, and had no hemorrhage at all, and less vaginal discharge.

This case is interesting not only therapeutically, but because it furnishes a good example of primary cancer of the vagina; and as such it may be contrasted with the one related to the Society by Dr. Mears about a month since. Some may question the conclusion that the vagina was first affected, since the uterus was involved at the time she came under observation. It was affected to such a slight extent, while the destruction of the vagina and bladder was so great, that the cervix could hardly have been the starting-point of the malignant growth.

It is of course not claimed that the removal of the redundant portions of cancers of the female genitals by scraping will cure the disease. It will only prolong life by diminishing, or completely arresting, the hemorrhages for the time being. But this is no trivial matter. No symptom of the disease is more important than this one, and, without doubt, it has shortened the lives of many of these unfortunate sufferers. At the same time, the discharge is greatly diminished, because the fungous and disintegrating portions of the morbid tissue are not allowed to accumulate. To achieve this is no trifle, as every sufferer from this terrible disease can testify. It is true that the procedure has to be repeated at intervals; but this is no argument against its utility, as in this disease the physician can only hope to prolong life and diminish suffering.

The operation should be performed with caution until its usefulness is fairly established or disproved. It is not difficult to conceive that it may be followed by pelvic peritonitis under some circumstances, or that, in cases in which the disease had existed for a long time, and much tissue destroyed, adjacent organs might be injured, unless care was employed.

1513 Arch Street, Philadelphia.

* *American Journal of Obstetrics*, August, 1872.

THE ACTION OF QUININE ON THE UTERUS.

BY H. G. LANDIS, M.D.,
Niles, O.

THE statement that quinine has a special influence upon the uterus has elicited many expressions of opinion through the journals, which for the most part oppose the views advanced by Monteverdi. I have had an opportunity of testing this influence in over twenty cases during the past year, in a malarial district, and offer the result to the profession as additional testimony. The trials were all made upon the impregnated uterus, and mainly in cases of lingering pains during labor; but it seems very unlikely that an agent purporting to excite or strengthen the muscular action of the womb would act in an essentially different manner on the unimpregnated uterus. I have grouped the cases as follows: I. Those in which quinine effected or seemed to effect a change in the behavior of the uterus; and—II. Those in which it did not. Only the first need be given at length, and a comparison will enable us to determine the amount of influence exerted by the drug. The first three cases show its action during labor.

I. *No.* 1.—Fifth pregnancy. Lives on the edge of an undrained pond of stagnant water, and is frequently subject to ague. Called at 12.50; found os uteri 2½ inches in diameter. Pains poor and infrequent, and no change by 2.10, when I gave quin. sulph. gr. v, and ruptured the membranes. In half an hour the pains became strong and frequent, and the child was rapidly expelled at 2.50.

No. 2.—Third pregnancy. Lives next door to No. 1. Called at 8 A.M.; found os uteri 1¾ inches in diameter. Pains feeble, and ten minutes apart. Dilatation, however, was complete at 10.30, when the pains became still feebler. At 11 gave quinine gr. vj; in ten minutes the pains grew strong, and in ten minutes more the head was born, going through the whole mechanism of descent in that time.

No. 3.—Fourth pregnancy. Lives on the edge of a partly-cleared woods, within a stone's-throw of a sluggish river, and on very low, swampy ground. Has been nursing a child in a bad attack of remittent fever. Labor began early in the afternoon. Pains were trifling, and at 5.45 P.M. the os was barely one inch in diameter. At 6.30 gave quin. sulph. gr. iv. Pains increased in twenty minutes. Dilatation was complete at 7, and birth occurred at 7.15, after a long and continuous pain.

It will be seen at once that these cases have one feature in common, viz., the presence of a malarial atmosphere. In the next three an attack of malarial poisoning was present at the time.

No. 4.—Second pregnancy. Six and a half months advanced. Has had two chills, and is now threatened

with miscarriage. Has some flooding, but the os uteri is but little patulous. Gave her small doses of quinine, relying on morphia and chloral with gallic acid to check hemorrhage. On the next day the flooding had ceased, but there was a good deal of pain, and the urine had to be withdrawn by catheter. On the next day, when a chill would naturally have occurred, the flooding was renewed profusely, and the os dilated so as to allow the introduction of the finger. I gave quin. sulph. gr. v, and morph. sulph. gr. ½, every three hours, which soon ended the whole trouble. Quinine was continued at intervals, and gestation proceeded undisturbed until full term.

No. 5.—Third pregnancy. Was attacked August 16 by remittent fever, being nearly at full term. Vomiting was severe, and she was delirious during the first night of the fever. Morphia and bismuth were alternated with full doses of quinine. She had abdominal and lumbar pains from the commencement. After the first day the fever was kept in check by quinine, and on the 21st, although feeling almost entirely well, labor began naturally. The pains were excellent, and the labor short. Quinine was then stopped, and on the 25th, nine days from the first onset of the fever, nausea, delirium, and a violent exacerbation recurred, which was in return controlled by quinine. It is interesting to notice how little the fever interfered with the labor, but, in the light of the next case, a part of this result must be ascribed to the quinine.

No. 6.—Fifth pregnancy. Had had remittent fever for three weeks. Was at full term, and had had hemorrhage and teasing pains for two days. The os uteri was slightly dilated, and it was evident that nothing interfered with the termination of labor but inertia of the womb. I gave quinine gr. ij with tinct. ferri chlor. every four hours, and in twenty-four hours effective labor came on, and was soon terminated.

These are the only cases in which I could fairly attribute any useful action to quinine in regulating uterine contractions, excepting one in which two doses given half an hour apart caused copious vomiting, with the not uncommon effect of relaxing the parts and accelerating labor.

II. It would be tedious and unnecessary to describe at length the cases in which quinine had no perceptible effect. They occurred in more healthy neighborhoods and in women uninfluenced by ague. The drug was given in this series only for lingering inefficient pains during the first or second stages of labor, which was an occurrence not of unusual frequency, as I have notes of double the number which were entirely normal, though delivered during the same period and in a malarious season. One case will suffice. Eight grains of quinine were given after partial dilatation of the os, the pains being tolerably regular but very inefficient, only wearing out the woman's patience. No effect whatever was produced for six hours, when a grain of opium was given, and labor terminated in two hours. The inference I have drawn from these cases is that inertia of the womb in labor or threatened abortion can be successfully combated by quinine only, in the presence of a definite attack of ague or a decidedly malarious atmosphere, but that it has no perceptible effect on the uterus uninfluenced by this disturbing agent.

Dr. Voisin, formerly physician to the Bicêtre, died in November last, at the age of nearly eighty.

TRANSLATIONS.

VON OPPOLZER'S LECTURES ON DISEASES OF THE ŒSOPHAGUS.

Being the latter portion of the first part of the second volume of Oppolzer's Vorlesungen über specielle Pathologie und Therapie, Erlangen, 1872.

Condensed from the German of Dr. Emil Ritter von Stoffella

BY DR. J. SOLIS COHEN.

GENERAL REMARKS UPON THE DISEASES OF THE ŒSOPHAGUS AND THE METHODS OF INVESTIGATING THEM.

DISEASES of the œsophagus are much less frequent than diseases of the rest of the digestive tract,—a circumstance attributed by Oppolzer to the thick epithelial coat with which the œsophagus is covered, and to its comparatively moderate vascularity. Both this infrequency of disease, and the difficulties so often encountered in determining the actual abnormal condition of the œsophagus, render it evident that the present state of our knowledge of œsophageal affections leaves much to be desired. As long as medical investigation progressed no further than symptomatic manifestations, all these diseases were included under the general head of dysphagia, subdivided into inflammatory, spasmodic, paralytic, organic, and "lusoric" (or, as Hamburger has recently sarcastically termed it, illusoric) (phantom?) dysphagia.

Recent scientific research has brought anatomico-pathological investigation to bear on these affections, and enables us to comprehend them much better than formerly, though not with the exactness characterizing our knowledge of the disorders of many other organs. The invention of the œsophagoscope, and the recent application, by Hamburger, of auscultation to the study of the œsophagus, give every promise of substantial additions, before long, to our knowledge of these diseases.

The most prominent indication of disease of the œsophagus is *dysphagia*,—difficulty of swallowing. In most instances, deglutition is impeded to a greater or less degree, partly on account of pain in the act, partly on account of some mechanical obstacle, tumor, constriction, spasm, or paralysis, etc., as the case may be. Too much weight, however, must not be accorded to this symptom, inasmuch as its cause may lie altogether outside of the œsophagus, on the one hand, and, on the other, because extensive disease of the œsophagus may exist without giving rise to the slightest impediment in swallowing.

Pain is sometimes entirely absent in œsophageal diseases, or present merely as a dull ache, this exemption being explained by the slight sensitiveness of the organ. Severe pain exists only in cases of abscess and in specially severe inflammations, such as result from scalds, or poisoning with caustic substances; while in simple catarrhal inflammation, or even pustulous inflammations (as in smallpox, etc.), there is, as a rule, no pain. Pain is sometimes localized; usually at the lower end of the tube, or beneath the manubrium sterni; and this may lead to error, if it is always inferred that the seat of pain indicates the seat of disease. The assertion of the patient as to the exact seat of pain cannot always be fully relied on, or, at least, only with a certain amount of probability as to its designating the seat of the disease in the œsophagus.

Regurgitation of food is another accompaniment of œsophageal disease, especially when dysphagia exists.

Rumination—chewing the cud, as it were—is a symptom which has been observed to accompany congenital dilatation of the œsophagus.

Auscultation of the œsophagus, so practically applied by Hamburger, gives the following results, in brief, in the normal subject:

1. *In the neck.* Listening through a stethoscope placed upon the neck in the vicinity of the hyoid bone, while the patient is swallowing fluid, we hear a strongly-marked metallic gurgling, due to the commingling of air with the swallowed fluid.

2. *In the thorax.* If the auscultation is made over that region of the œsophagus extending from the level of the cricoid cartilage to that of the eighth rib, we hear during deglutition a sound as if a small but firm spindle-formed body, circularly compressed by the œsophagus, was suddenly shoved noisily downwards. This last sound (the deglutition-sound) is either the sound of a smoothly-slipping substance, or that of the so-called clucking, in which case it is so loud that it masks the entire act of deglutition, and renders its auscultation impossible. The ear must be placed upon the posterior wall of the thorax, to the left of the vertebral column, because, ausculted on the right side, the sound is not so clear, but is dull, and as if coming from a considerable depth.

If the œsophagus is diseased, these auscultatory phenomena undergo many obvious modifications. Thus, for instance, in case of marked stricture, or rupture of the œsophagus, or obstruction by impacted foreign body, or obstruction from retention of the bolus in the pocket of a diverticulum, or also in case of paralysis or organic dilatation, we find that the act of deglutition cannot be detected by auscultation below a certain point, while it is distinct enough above that point. At other times an adventitious sound, such as that of friction, accompanies the smooth normal sound of deglutition, indicating roughness of the inner surface of the œsophagus, such as might accompany croup or diphtheritis of the œsophagus, the pustules of smallpox, large ulcers with ragged edges, polypous excrescences, etc. Under other conditions there is a hissing or rustling sound, or a sound of sprinkling, or leaking, from which we may learn that the bolus does not acquire its normal spindle-like form, or that deglutition does not take place with normal rapidity. Then, again, we may learn from auscultation that the bolus does not pass vertically downwards as it should do in a condition of health, but that it takes an oblique direction towards the left or the right, or rises upwards again. This oblique deviation may be due to aneurism of the aorta, or to exostosis of the vertebræ.

Inspection is only of occasional value in diagnosing affections of the œsophagus. Tumors and abscesses are sometimes rendered prominent, and sometimes we observe the outlets of œsophageal fistulæ. Inspection with the œsophagoscope is so difficult of execution, and usually so painful to the patient, that it can be resorted to with success only in the very rarest cases.

Palpation is limited externally to the region of the neck, and may detect the seat of pain or the seat of impaction of a foreign body. Mediate palpation is performed by the insertion of the œsophageal sound, the operation being known as catheterization of the œsophagus. These explorative examinations must be made with great care, lest by the exercise of too much force we rupture the organ or its mucous membrane. By this method we learn whether the direction of the œsophagus be normal; whether there is a stricture, or a diverticulum; whether its calibre is obstructed by a foreign body or a neoplasm; or we may determine the locality of an ulcer or of inflammation. The presence of pus or of blood on the end of the instrument is also important in a diagnostic view.

Simultaneous auscultation and catheterization is of great importance, as demonstrated by Hamburger. A peculiar tone is heard to follow the passage of the instrument, which can be utilized in locating more exactly the seat of various local affections, and in making topical applications to them.

(To be continued.)

Sick-Headache (*British Medical Journal*, December 21, 1872).—In a report on the treatment of this distressing affection, Dr. Wilks recommends three remedies. To cut short an existing attack, he gives bromide of potassium in doses of gr. xv to xx. One dose is often sufficient. As a prophylactic, he uses the (tincture of?) cannabis Indica, a few drops thrice daily for some weeks.

Of guarana he says,—

"Thirdly, guarana has been introduced to our notice as a remedy for sick-headache, and here, again, we have a very valuable addition to our pharmacopœia. In many instances, especially those of ladies, I have had the most positive assurance given to me of the power of this drug in arresting headache, so that not the slightest doubt can be entertained of its immense value. A dose is usually taken when the headache is approaching; and if this is not quickly successful in arresting it, a second powder is swallowed; after an hour or so, if the remedy is to be useful, the headache has disappeared. I know of several cases in which the greatest enthusiasm is expressed by patients as to its merits. At the same time, I am constantly hearing of cases where it has failed. I am now trying it in smaller doses by daily administration.

"I feel certain that these three drugs—bromide of potassium, cannabis Indica, and guarana—constitute a most important addition to our nervine medicines, and that in them we have remedies against a terrible complaint which, a few years ago, constituted the opprobrium of medicine. I might say that I know of cases where galvanism has very speedily cured a pain in the head; and I can call to mind the case of a lady, where the application of the bisulphide of carbon invariably relieved the most severe headaches."

Intrabuccal Resection of the Inferior Maxillary Nerve (*Ib.*).—Dr. A. Menzel has described in the *Archiv für Klinische Chirurgie* (Band xiii.) two cases in which a portion of the inferior maxillary nerve was successfully excised by the intrabuccal method, proposed in 1858 by Paravicini of Milan. One of the patients was operated on by Dr. Menzel; the other by Dr. Billroth. The incision was made along the anterior border of the ramus of the jaw; and, by tearing through some connective tissue with the finger, the nerve was reached at its entrance into the dental canal. Care should be taken to divide the nerve close to the bone, so that the lingual nerve may not be injured. Dr. Menzel also describes a somewhat similar case, in which he divided both the dental and the lingual nerves by the intrabuccal operation; and he believes that these are the first instances in which the operation was performed on the inferior maxillary nerve in the living subject. The intrabuccal method is said to possess the following advantages: freedom from danger; the possibility of resecting the nerve at a higher point; the absence of cicatrix and of facial paralysis, and of salivary fistula; and the facility of the operation.

Pill for Neuralgia (*Georgia Medical Companion*, Dec. 1872).—

℞ Ext. of hyoscyamus,
Ext. of valerian,
White oxide of zinc, aa ʒj.—M.

Make the mixture into sixty pills. One pill may be taken every three hours. This is an old and favorite prescription of the German and French physicians, and is mentioned in many of their works on therapeutics.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, FEBRUARY 1, 1873.

EDITORIAL.

MEDICAL AND SURGICAL HISTORY OF THE REBELLION.

IN the U. S. Senate, on Friday, January 17, 1873, Senator Anthony, from the Committee on Printing, reported the following resolution from the House of Representatives, without amendment, and asked for its consideration and passage. "By unanimous consent" (we quote from the *Congressional Globe*) "the resolution was considered and agreed to, as follows:"

"*Resolved, by the House of Representatives* (the Senate concurring), that of the five thousand copies of the medical and surgical history of the war authorized to be printed by joint resolution of Congress, approved March 3, 1869, two thousand copies shall be for the use of the House of Representatives, one thousand for the Senate, and two thousand for distribution by the Surgeon-General of the Army."

We are informed that Part First of the Medical and Surgical History of the Rebellion, the distribution of which is here provided for, consists of two large quarto volumes, with an aggregate of 1800 pages, twenty-five plates, and three hundred wood-cuts. The first comprises the classified consolidation of the sick reports for the whole period of the war, with which is bound an appendix of 365 pages, containing the medical directors' reports, and other documents. The second, or surgical volume, treats, in five chapters, of the special wounds and injuries of the head, face, spine, neck, and chest.

The following draft of a bill had been brought in by Senator Logan, on the 13th:

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the Secretary of War be, and hereby is, directed to have printed, at the Government Printing-Office, one thousand copies of the descriptive anatomical catalogue of the Army Medical Museum, in folio, for distribution to the contributors and collaborators of the museum.

"SEC. 2. That the amount of twenty thousand dollars, out of moneys in the Treasury not otherwise appropriated, be, and hereby is, appropriated for the preparation of the necessary engravings and lithographs for said catalogue, under the supervision of the Surgeon-General of the Army."

We understand that this volume will comprise an account of the crania in the Army Medical Museum, handsomely illustrated, with the measurements of over one thousand skulls. It is greatly to be hoped that the importance of this most valuable addition to the scientific contributions from the Surgeon-General's office will be so clearly presented in Congress as to set aside any utilitarian opposition, and that the work will be at once authorized.

A DESIRABLE MEASURE.

WE observe, with much satisfaction, that an attempt is to be made, under the auspices of the Lancashire and Cheshire Branch of the British Medical Association, to obtain such statistics as may throw light upon the now obscure subject of the duration of infection. In a recent editorial, the *British Medical Journal*, after speaking of the inconvenience to school-teachers and parents, employers and employés, caused by uncertainty on this point, says that

"There are doubtless not a few practitioners who, when they are asked questions on this subject, boldly confess their ignorance,—a course which may raise them individually in the estimation of sensible people, but which will hardly raise the credit of medical science. Others, again, fix an extreme limit by way of being 'on the safe side;' and a third class endeavor to come as near the truth as their own experience or that of their *confrères* will allow. Naturally, there are great differences in these latter opinions as expressed to the public, and thus arises another source of the contemptuous opinion which is held of medicine by men of science."

The committee have had circulars printed for distribution to the profession, and schedules for recording cases observed, these circulars and schedules being suggestive of the points to be noted. Copies of them can be had on application to the Honorary Secretary of the Committee, Dr. Haddon, of Monkshall, Eccles, Manchester. We trust

copies of them may be sent to this country, in order that the same line of inquiry may be set on foot here.

And yet—under what auspices? We can scarcely think that the American Medical Association has within it any machinery adapted to this task, and we do not know whether any of the State or County Societies can undertake it with better prospects. Here, as often before, is felt the need of an organization which should be able to appeal to the profession with authority, and to claim its hearty and general co-operation,—a representative body, which should speak in the name of the physicians of the United States, by their appointment. Looking back over the history of our Association and its work, we do not think the most sanguine of its conservative friends can promise us any very satisfactory result in regard to the matter in question.

THE CENTENNIAL COMMISSION.

SOME time since we received from the office of the commissioners a copy of the minutes of the proceedings of the corporators for Pennsylvania of the Centennial Board of Finance, together with a circular from the President of the Board, asking us to give the cause the most earnest and effective support.

We hope, and we do not doubt, that the profession in this city and throughout the United States will take an active share in forwarding an object so patriotic. And yet it has not seemed to us that we ought to fill our columns with matter to which our readers would have such ample access in the secular journals. We shall therefore merely say that the plan has our most hearty concurrence, and our sincerest wishes for its brilliant success.

It may be well to mention again that the following gentlemen have been appointed the subscription committee for the medical profession: Dr. John B. Biddle, *Chairman;* Drs. Francis Gurney Smith, Jr., John Neill, Caspar Wister, and Edward Hartshorne.

SMALLPOX AGAIN.

UNPLEASANT accounts reach us of the prevalence of smallpox in Boston, and of a less severe visitation of it in Baltimore. The probabilities are against its attacking the people of this city with any degree of virulence this winter; but it would be the part of wisdom for our authorities to be on the watch against it. A thorough carrying out of sanitary measures among the lower orders, the greatest care to vaccinate all the unprotected, wherever found, and the prompt isolation of any cases of the disease as soon as they occur, may save a vast amount of trouble. Last winter's lessons should not be lost upon us.

PROCEEDINGS OF SOCIETIES.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

January 6, 1873.

DIRECTOR W. S. W. RUSCHENBERGER, M.D., in the chair.

PRESENT, Drs. J. G. Hunt, McQuillen, I. Norris, and Richardson; and Messrs. Corlies, Warner, and Trueman.

The Corresponding Secretary, Dr. J. H. McQuillen, presented a fine specimen of Nottingham tripoli, donated to the Section by Dr. Philip T. Tyson through Dr. J. Cheston Morris.

The report of the committee upon Dr. Fricke's paper, recommending it for publication in the *Philadelphia Medical Times*, was accepted, and the committee discharged.

Dr. J. G. HUNT called the attention of members to some beautiful specimens of vegetable structures which he had adjusted beneath the microscope, and remarked that the popular method of studying botany fails to give the student much definite information in regard to the structure of plants. To ascertain the name of a plant by reference to some "analytical key," then to press it between brown paper and entomb it in an herbarium, should not any longer be regarded as scientific botany.

Minute organization, which undergoes no change, at least none during the ordinary life of the student, and not the ever-changing classifications of authors, shall be the subject of my remarks this evening.

I hold in my hand a portion of Sarracenia vasiolaris, obtained from Florida. Its habitat is the swamps of hot countries, and its appearance even to ordinary observation is peculiar and beautiful. From two to five or six radical leaves constitute all the foliaceous parts of the plant, and these leaves are fashioned into hollow vessels, which have been compared to pitchers. Commencing near the ground in a narrow cavity, they gradually enlarge towards the top to an inch or two in diameter, and are found sometimes eighteen inches in length. Overhanging this wild forest-pitcher is a lid, formed by a prolongation of the leaf. It is to the minute structure of the *internal* surface of this pitcher that I will ask your attention. We will commence at the top, and travel, in thought, to the bottom. There are preparations on the table, stained with aniline, and mounted in damar, to illustrate its structure.

A zone of stiff spines surrounds the pitcher in its upper part, and extends about an inch downwards; each spine projects into the cavity about the one-sixtieth of an inch, while the points of all are directed downwards. These spines are exceedingly acuminate, much more so than it is possible to make a needle, and their walls are ribbed with exceedingly delicate lines of cell-deposit, which converge to the points, looking not unlike the so-called lines on some diatoms, only these are true lines.

It is very curious to observe how these spines diminish in size but increase in number as we descend the pitcher, until we come to a second zone quite encircling its cavity, which is here covered entirely by diminutive spinous projections, each about the one-six-hundredth

part of an inch long and remarkably uniform in size, and so closely imbricated as to resemble, in arrangement, the scales on a fish. It requires delicate optical arrangements to detect all the beautiful details of structure in this middle zone of Sarracenia, and oblique light, in which so many microscopists delight, will be found necessary to reveal the delicate converging striations on the spines.

The two zones I have mentioned, while structurally dissimilar, are dotted quite thickly, but especially the upper one, with beautiful little glands, which sparkle like rubies when properly tinted with aniline. These glands are imbedded just under the epidermis, and open by minute orifices between the spines. Several straight-sided cells, arranged around little cavities, build up their walls.

Stomata, too, are scattered sparingly through the upper zone of spines, and each stomatal cell is engraved with faint lines which converge towards their free margins.

The third or lowest zone carries on its surface slender flexible filaments of far greater length, and placed more thickly together; a dense forest, in fact, whose innumerable filaments, curved downwards, interlock with those on the opposite side, making thus a trap across the narrow pitcher, through which an insect might readily enter, but from which it could not possibly escape.

These curious traps are set in the swamps, and we find them often containing many insects which have been lured to drink of the strange intoxication found therein, but, like bigger bugs of other genera, were not able always to retreat.

Method of Investigation.—To examine the surface of our plant simply as an opaque object, would give no conception of its true structure. We must have a process, therefore, applicable to all such investigations. Cut from the plant pieces about half an inch square, and put them in a test-tube with one part water and two parts nitric acid, and heat until the tissues can be separated easily. Then decant into clean water, and wash gently to remove the acid. It will be easy now to separate the tissues with forceps or needles, and those parts which show structure best may be put in clean water preparatory to staining. Make a solution of rose aniline in distilled water to which a little alcohol has been added, and immerse your preparation for one or two days, or until the desired tint is obtained. Have your staining solution quite dilute, and allow time for the tinting. Most stained preparations of both animal and vegetable tissues are worthless, because too much color obscures all delicacy of structural detail. All that I aim at in staining is to differentiate parts which are really structurally dissimilar, but yet so alike in *transparency* as to escape notice without the tinting; and, when used in this way, coloring becomes a more delicate process of discrimination than polarized light. If the staining has been conducted properly, the liquid remaining in the vessel will be quite clear; *all color will be taken up by the preparation.*

Now transfer to camphor-water, in which the specimen thus prepared may be preserved indefinitely, or be sealed up in a cell, using the same liquid for a preservative. Acids or alkalies should never touch an aniline preparation.

This process of examination, or its equivalent, I have practised for ten years, and it gives results which I have not seen equalled otherwise.

If it be desired to preserve the specimen in damar, the process is not difficult. The only hazard is too much structural change by shrinkage, or entire loss of color. Both these calamities may be entirely avoided. Float the preparation from the camphor-water upon a slide, and cover with another glass, and *very gently* tie a string around both; then immerse in absolute alcohol, if you can get it, for a few hours; then transfer to *alcohol and oil of cloves, equal parts*, and when thoroughly saturated, remove the preparation from between the glasses, and, if clean, mount in damar. Nearly all delicate vegetable tissues, if carefully manipulated in this way, may be mounted in damar, and kept *permanently*, —thus avoiding cells, which have been known to leak,— and yet retain all their delicate aniline tinting, without contraction or too great transparency, or other structural alterations, which so often render this kind of work unfit for scientific study.

Mr. WARNER inquired whether it was known what kind of a digestive process, if any, flies and other insects underwent after being caught in the manner described by the leaves of the Sarracenia.

Dr. Hunt replied that although the flies went into the cavities of the leaves, and, not being able to find their way out, died there, we are as yet destitute of a single atom of evidence that the plants accused of the diabolical cruelty of fly-catching are really guilty of that crime.

Mr. Warner observed that, since this process of fly-catching and killing had evidently been going on in this same way for centuries, it seemed to him probable that there was some object in the operation, and therefore that it formed some unexplained part in that grand scheme which was called, when he was a boy, "the economy of nature."

Dr. Hunt added that the leaves of the Dionœa or Venus' fly-trap shut, it is true, upon insects, and sometimes crush them in their folds; but these supposed carnivorous leaves will close upon a piece of cheese, or a small gravel-stone, with equal readiness, and compress such inanimate objects with equal force.

Dr. RICHARDSON inquired what were the further steps of the process by which such admirable mountings in damar varnish as those exhibited were finally completed.

Dr. Hunt answered that, when the specimens were prepared, a slide was to be warmed, a pretty large drop of the damar varnish placed upon its middle, and heated until sufficiently hardened to no longer flow freely; then add another drop of the varnish, immerse in this the specimen, heat the thin glass cover and lay it on, avoiding air-bubbles, and finally harden the varnish to complete firmness by the continued application of the spirit-lamp. Finish by cleaning off the excess of varnish with a soft rag dipped in alcohol, and putting on a smooth ring of the damar, and not of asphaltum varnish.

Dr. J. G. HUNT also showed beneath the microscope specimens of a variety of the common truffle (Tuber nitidum (?), discovered near the Schuylkill River, above Philadelphia, and stated that, as far as he was aware, this was the first time the fungus had been found growing wild in America.

Dr. Hunt likewise called the attention of the members to a modification of the German method of imbedding, as recently described by Dr. Tyson, which consisted in using the ordinary brass section-cutter as a mould for the paraffine, instead of making a mould for that substance out of a cone or box of paper.

Dr. Richardson remarked that this so-called improvement would have the great disadvantage of preventing the operator from cutting his thin sections in any plane except that which happened to lie exactly at right angles to the axis of the section-cutter. Practically he had found it exceedingly advantageous to be able to turn in the fingers the lump of paraffine containing, for example, a piece of kidney, so as to cut first a longitudinal, then a transverse, and finally a diagonal section of the uriniferous tubules.

Dr. Hunt admitted that this cutting thin slices in various directions might be useful in some cases, but

observed that without the aid of the section-cutter it was almost impossible to obtain thin sections of half an inch or more in breadth, and that he believed it was only by the preparation and study of such specimens that we could penetrate the secrets of pathology and discover wherein consisted the exact primary alteration of structure which occurs, for example, when healthy tissue first becomes the seat of cancerous growth.

At the suggestion of Dr. Hunt, it was resolved on motion that a committee be appointed to consider the subject of holding a meeting for the purpose of exhibiting and comparing microscopes, microscopic apparatus, and specimens; to which duty Drs. Richardson, J. G. Hunt, and I. Norris, Jr., were appointed.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Vice-President J. G. Stetler in the chair.

At a conversational meeting held January 8, 1872, at 8 o'clock P.M.,

Dr. W. B. Atkinson referred to a case of hæmaturia of a severe character. To-day a large amount of blood and urine was passed, which when tested was found to contain albumen. The patient had an attack three years ago of a similar character. He had recommended to the attending physician the use of benzoic acid.

Dr. H. Y. Evans asked Dr. Atkinson upon what theory he gave the benzoic acid.

Dr. Atkinson said he had prescribed it on the authority of Carl Braun of Vienna. He had used it in other cases with success.

Dr. O'Hara said that, previous to the appearance of albumen in the urine, one can detect an antecedent stage of Bright's disease by the use of tinct. of galls as a test; there is an immediate precipitate of blood extractives, and it is positively asserted that one can thus be prepared for the advent of the albuminuria in all cases. In pregnant cases the disease disappears frequently of itself after labor. The remedies are numerous, but iron, quinine, and belladonna, and various other remedies, are useful. He could not understand the philosophy of using benzoic acid.

Dr. Atkinson said he had seen the albuminuria cease before delivery in cases of pregnancy, and that the patient's condition was markedly improved by its use. Dr. Atkinson asked Dr. H. Y. Evans in what manner he would treat hæmaturia.

Dr. Evans replied that he would treat it on general principles,—improve the patient's condition, by means of large doses of the tincture of the muriate of iron, opium, alcohol, and quinia.

He had seen in *The Medical Times and Gazette* nitro-muriatic acid highly recommended.

Dr. O'Hara remarked, if the albumen disappeared in these puerperal cases a few days prior to labor, according to his understanding, benzoic acid would have a lifting or motive power. He did not consider the Bright's disease of pregnancy due to dyscrasia, but rather to pressure and tension, with passive congestion of the kidneys and its associate organs. It would be found that albuminuria had no necessary connection with convulsions. A not uncommon form of convulsions was that associated with the casting-off of a fœtus at four, five, or six months, and which he had generally found fatal, and the urine not albuminous.

Dr. Atkinson made the inquiry,—if albuminuria in pregnant women was due to pressure, why did they not all have it?

Dr. Stetler asked Dr. Atkinson whether the albumen was more copious than he would expect to find in hemorrhage, especially where a considerable amount of the serous portion of the blood or liquor sanguinis had escaped; also whether he had made a microscopic examination of the urine.

Dr. Atkinson replied that no microscopic examination had been made. The urine was obtained as free from blood as possible. In reply to Dr. Welch, he stated that the blood was from the kidney, and that there was no stone in the bladder.

Dr. N. Hatfield remarked that blood coming from the kidney would be disintegrated by the urine, and would not coagulate. It was most likely from the bladder.

Dr. Evans said that, as a rule, the blood from the kidneys in chronic hæmaturic cases is so altered by the acids of the urine by the time it passes from the bladder that it does not coagulate; though in cases of mechanical violence, almost pure blood will pass, coagulating without artificial means.

At the stated meeting of the Society, held January 15, 1873, at 4 o'clock P.M., Dr. J. G. Stetler, Vice-President, in the chair, the following officers and delegates were chosen by ballot for the ensuing year:

President, Dr. William B. Atkinson.
Vice-Presidents, Dr. Henry H. Smith, Dr. H. St. Clair Ash.
Recording Secretary, Dr. Henry Leaman.
Assistant Recording Secretary, Dr. Lemuel J. Deal.
Corresponding Secretary, Dr. William Goodell.
Treasurer, Dr. William M. Welch.
Censor, Dr. N. L. Hatfield.

REVIEWS AND BOOK NOTICES.

Surgical Diseases of Infants and Children. By M. P. Guersant, Honorary Surgeon of the Hôpital des Enfants Malades, Paris, etc. Translated from the French by Richard J. Dunglison, M.D. 8vo, pp. 354. Philadelphia, Henry C. Lea, 1873.

The great reputation of the author of this work was well earned. We can bear witness to the gentleness and skill with which he ministered to the little patients in his hospital-wards, and to the value of the lectures he gave. But since these lectures were published in the original, surgery, both as a science and as an art, has made great strides; and the practitioner of the present day will find even this excellent translation of little use. As an addition to the classical literature of the profession, however, we give it a cordial welcome.

Aids to the Diagnosis of Diseases of the Kidneys. By W. R. Basham, M.D. 8vo, pp. 48. Philadelphia, Lindsay & Blakiston, 1872.

"It has appeared to the author that what has been of use to himself may be of advantage to others." This, the author's initial sentence, is the keynote of his effort. The work is small,—forty-eight pages,—and contains ten plates; each plate giving six microscopic views. The text is but the explanation of the plates,—the story of the pictures, which refer to actual cases, forty-one in number, detailed in the book. This is an ingenious way of impressing microscopical appearances upon the mind; the book being only of use, however, to the practitioner who is also a close investigator and user of his microscope in daily work. To such it will prove highly suggestive, and a real aid. Not so bulky as to repel, but short and concise, such a book not only aids us in clearing up doubtful diagnoses, but suggests, oftentimes, the true explanation of cases whose real nature has been totally unsuspected.

BOOKS AND PAMPHLETS RECEIVED.

The Pharmacopœia of the United States of America. Fifth Decennial Revision. By authority of the National Convention for revising the Pharmacopœia, held at Washington, A.D. 1870. Small 8vo, pp. 383. Philadelphia, J. B. Lippincott & Co., 1873.

Diseases of the Ovaries: their Diagnosis and Treatment. By T. Spencer Wells, Fellow and Member of Council of the Royal College of Surgeons of England, etc. etc. 8vo, pp. 478. New York, D. Appleton & Co., 1873.

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GLEANINGS FROM OUR EXCHANGES.

Artificial Placental Respiration (*Medical Examiner*, Dec. 15, 1872).—At the meeting of the Chicago Society of Physicians and Surgeons, held Nov. 12, a paper, avowedly a suggestion only, was read by Dr. John Bartlett, entitled *Artificial Placental Respiration.*

Dr. Bartlett suggested, in certain cases in which the after-birth is extracted or extruded before the child, the following practice: *directly upon the detachment of the placenta, immerse it in the fresh, warm, defibrinated blood of some animal, as the sheep; change the blood as often as practicable, and aerate it by means of oxygen gas.*

Dr. Bartlett considered the statements going to show that the life of the fœtus was not momentarily dependent upon the purification of its blood through contact with the maternal circulation, too numerous to be disregarded. Three classes of cases in which the fœtus had for a considerable time survived a separation from the maternal circulation, were cited. In one class, the child maintained life in the dead body of the mother; in a second, the fœtus survived separated from the mother, its relations with the after-birth and membranes being retained; in the third, the child remained alive in utero, while the placenta was without the mother.

The circumstances and conditions under which the fœtus may, for a considerable time, continue its life after the disruption of its placental relations to the parent, seemed to be such as left the after-birth in situation, in some measure, to perform its branchial functions.

Dr. B. proceeded to point out by what simple processes of absorption and exhalation the embryo in the lower forms of vertebrata, and in man in the earliest stages of embryonic existence, was nourished. He stated that the relation of the placenta of the chick to the albumen of the egg—its immersion in a fluid through which it absorbed oxygen and exhaled carbonic acid—was exactly such as he proposed to establish between the fœtus and the blood in which the placenta was immersed.

In regard to the probabilities of the simple immersion of the placenta in arterial blood proving adequate for the temporary respiration of the fœtus, the essayist called attention to the rapidity with which absorption took place through even the smallest abraded surfaces. The placenta presented fifty square inches of serous, and the like extent of fresh surface through which the necessary interchange of gases might take place. In referring to the anatomy of the placenta, the language of Owen was quoted: "The placental inter-communication is carried on by the contact of the fœtal capillaries with the *maternal extravasated blood.*" In this expression, Dr. Bartlett regarded his suggestion as foreshadowed.

Artificial placental respiration would prove available in those cases of placenta prævia in which the after-birth is detached, whether by the efforts of the uterus, or by the accoucheur. It might also offer an additional chance of resuscitation to the asphyxiated child, where the placenta is also delivered.

On account of the difficulty of obtaining blood of an inferior animal just when needed, Dr. Bartlett suggested that the addition of phosphate of soda and oxygen gas to water might render it a substitute. In some cases, the blood escaping from the mother might be made use of.

Prevention of Miscarriage by Hypodermic Injections of Morphia (*American Journal of the Medical Sciences*, Jan. 1873).—Dr. A. B. Isham, of Cincinnati, after detailing three cases of success obtained by this plan, says,—

"All the advocates of opium, with the exception of Tyler Smith, Byford, and Tanner, advise its administration per rectum. This is probably because the irritable stomach so common in cases of threatened miscarriage may not tolerate so nauseous a medicine as opium. In the manner of administration may have been the small measure of success. It is well known that medicaments introduced into the rectum act in a very uncertain manner; and it will be readily seen how opium or its alkaloids, given *per orem* to a patient vomiting and retching, might fail to avert a miscarriage. Just where these means have failed and will fail again, is where the hypodermic injections would prove invaluable.

"It is useless to enjoin quiet. The patient is not likely to be quiet, suffering the pains incident to uterine expulsive efforts, her mind perturbed by fears for her own welfare and that of her child. Too often, too, the fruit of conception is regarded as an incumbrance, which it would be happiness to lose, and constant activity is one of the most popular recipes to the attainment of such end. Cold applications, leeching and blood-letting, would prove in most instances a waste of precious time; besides, at this day, such practice would be esteemed a barbarity, and not without some reason.

"The prime elements of danger to the life of the fœtus are—*first*, muscular contractions of the uterus, and *second*, hemorrhage. The latter most commonly results from the operation of the former; but it matters nothing as to the many and various causes tending to produce these phenomena. Considerations of safety imperatively demand a speedy arrest of uterine muscular action and hemorrhage, securing which, we may go about investigating and correcting the causes with comparative leisure.

"The use of morphia by hypodermic injection is the most speedy and certain means we possess of effecting such desiderata. It will do even more. Its influence

spreads over the brain, and at the same time that it suspends contraction of the uterine muscular fibres it insures quiet and rest to the whole system, even against the patient's will. It is applicable to any case of threatened abortion, and I believe that its general use would render success at least equal, if not the rule, instead of the exception, as now announced by obstetricians. Of course I am aware that there are occasional individuals who do not well bear the exhibition of opium in any form, but I hold with Byford (Theory and Practice of Obstetrics, p. 171): 'I do not forget, in thus speaking freely about the use of opium, that peculiarities in some persons make it almost useless; yet I remember the unreliability of other remedies in these cases, and risk such disagreements.' "

The Pathology of Cerebral Hemorrhage (*British Medical Journal*, Nov. 9, 1872).—Dr. Zenker, of Erlangen, in a communication made to the last meeting of the Society of German Naturalists and Physicians, confirms in its essential points the statement made several years ago by Charcot and Bouchard, and by Dr. H. Charlton Bastian, that the disposition to cerebral hemorrhage consists in the formation of minute aneurisms. Having examined all the cases of spontaneous cerebral hemorrhage that have come under his notice during several years, Dr. Zenker in every instance found miliary aneurisms, both in the wall of the hemorrhagic deposits, and in other parts of the brain. They appear to the naked eye as little fluctuating tumors as large as a pin's head (rarely larger), and assume all the ordinary forms of aneurism. Usually the inner coats of the vessel give way, and a dissecting aneurism is formed. The disease may remain at this stage for some time, or there may even be recovery, a small pigmentary mass being left. In other instances, all the membranes burst, and hemorrhage into the brain takes place.

As to the origin of these minute cerebral aneurisms, Dr. Zenker does not entirely agree with MM. Charcot and Bouchard. These observers have called in question the dependence of these aneurisms on atheromatous degeneration; Zenker, however, is convinced that they have their origin, just like aneurisms of the larger vessels, in atheromatous disease of the inner coat of the arteries. These minute aneurisms may indeed be present, without any evident sign of disease in the arteries at the base of the brain. On microscopic examination, however, of the aneurisms and of the arterial twigs on which they are seated, the inner coat is found to present changes corresponding to the uneven thickening which occurs in atheroma of the larger vessels. Thus the researches of Charcot and Bouchard do not subvert the old doctrine of the dependence of cerebral hemorrhage on vascular degeneration, but give it an important confirmation.

Fœtal Femur imbedded in the Uterus. By Dr. Evory Kennedy, late Master of the Dublin Lying-in Hospital (*The Doctor*, Sept. 1, 1872).—A lady was brought to me from the country, anæmic, wasted, and with a countenance expressive of pain and suffering. She had a constant fetid vaginal discharge, purulent, and occasionally sanious. She was said to have miscarried a year before. She complained of pelvic distress, with lumbar pains and frequent micturition. On vaginal examination, the uterus was found about double its natural size. The os was slightly patulous, and a solid hard resistance was experienced on introducing the finger. The os was gradually dilated with a two-bladed uterine dilator constructed for the purpose, and a bony substance was distinctly felt traversing the neck of the uterus at the junction with the body of the organ. This was so deeply imbedded in the walls of the uterus that neither extremity could be dislodged. I introduced a pair of small beaked bone-forceps, constructed for the purpose, broke the bone across, and extracted piecemeal the femur of a fœtus of about four months' development, which had been all the time imbedded in the walls of the uterus, which was converted into an abscess by the presence of what should have been its natural occupant, thus forming an unnatural nidus in its walls in place of its cavity. The discharge subsided, and the lady recovered her usual health; but the look of health was never quite restored. She, however, bore children after an interval of six years, and the uterus appeared to have quite regained its normal condition.

The Circulation in the Spleen (Olga Stoff and Sophie Hasse, of Petersburg: *Centralblatt f. die Med. Wiss.*, No. 48, 1872).—These two ladies have performed their investigations in the laboratory of Prof. Frey, in Zurich, who corroborates the statements and conclusions drawn from their work.

The object of the investigations has been to decide between the assertions of Billroth, Schweigger, Seidel, and Kyber, and those of W. Müller and Frey.

The former hold that the circulation is performed in an unbroken circuit, while the latter contend that between the finest arterial capillaries and the beginning of the venous blood-vessels there is a system of lacunæ through which the blood passes on its way from the arterial to the venous system.

The spleens of a variety of animals, beasts, birds, and fishes, as well as of man, have been examined by Stoff and Hasse. Uninjected preparations are hardened in "Müller's fluid" and alcohol. Thin sections are then made, and colored with carmine or hæmatoxylin.

In such preparations, lymph-cells, as well as blood-corpuscles, were easily found, lying "free in the meshes of the reticulum of the pulp. This arrangement is still more distinctly seen by the careful use of the hair-pencil upon the preparation."

In the Malpighian corpuscles, however, the reticulum is found to contain no red blood-corpuscles in its meshes.

The lacunar system is especially well seen in specimens injected with the gelatine mass. In such preparations these observers found only once the direct passage of an arterial capillary into the initial portion of a capillary vein. In all other cases the existence of the intermediate lacunar system was rendered very clear.

Effect of Stimuli on the Secretion of the Parotid Gland.—Mr. P. Butler Stoney, late Resident Physician in St. Bartholomew's Hospital, relates (*Journal of Anatomy and Physiology*, Nov. 1872) some experiments made by him in a case of parotid fistula. The following were his results:

1. That mastication alone stimulates the flow of saliva from the parotid to a considerable extent. 2. That the effects of taste vary with the sapid substance, sugar having no effect, while tartaric acid acts most powerfully. 3. That sapid substances act equally when applied to the tip and base of the tongue. 4. That the effect of mastication and taste together is much greater than that of mastication alone. 5. That mental stimuli had a considerable effect in one experiment, but in others none at all. These results accord in some respects with those obtained by Schiff in his experiments on dogs, though differing from them in others. This physiologist observed that mastication alone had little or no stimulating action on the parotid secretion in dogs; and Dr. Brunton informs me that he has found this to be the case also in rabbits, while in the experiments above described the action was very distinct. The effect of the application of sugar and tartaric acid to the tongue of dogs was the same as that observed by me. The slight effect of purely mental stimuli in this case is remarkable, as the

parotid is stated by Kühne to be readily affected by them, but this may have been due in great measure to the character of the patient, who seemed to be dull and unimaginative. An experiment was also made for the purpose of determining the time required for the absorption of drugs and their excretion by the saliva. For this purpose iodide of potassium was administered, and the saliva constantly tested till it appeared. The time which elapsed between its administration by the mouth and its appearance in the saliva from the parotid duct was found in one experiment to be 29 minutes and 30 seconds.

Cause of Sleep.—Obersteiner (*Archiv für Psychiatrie*, Bd. 29) considers the proximate cause of sleep to be the accumulation of acid products in the brain, just as in the case of muscular fatigue. The periodicity is merely a matter of custom, like many other bodily functions. All conditions which interfere with the conveyance from the brain of acid combustion-products tend to induce sleep, and all conditions which favor their removal have a contrary effect. The conditions lie chiefly in the state of the circulation. Active hyperæmia in this way prevents sleep. Passive hyperæmia or venous congestion has an opposite effect. Anæmia, by diminishing the activity of interchange between the blood and tissues, favors sleep. Changes in the chemical constitution of the blood, as by narcotics, interfere with the absorption and excretion of the acid products, and hence cause sleep. He compares the cerebral vessels to the bronchial vessels, destined only to nourish the tissue. The real initiative to cerebral action proceeds from the nervous system itself. Hence, to allow of rest from the ordinary association-links of cerebral action, the brain must be disconnected from outward stimuli. When this is done, a tendency to sleep ensues; so also if one impression is kept up long. The continuance of an impression is equivalent to none at all. The will acts as a sort of inhibitory centre to the reflex cerebration. In sleep this is at rest; and hence cerebration shapes itself into dreams. These may be conditioned by stimuli which are not of sufficient intensity to rise into consciousness.

Poisoning by Acetate of Baryta.—In *L'Union Médicale*, M. Lagarde, of Verdun, describes in detail a case of death from the acetate of baryta, and the grave symptoms that he himself experienced from swallowing several grammes of the potion. The doctor had prescribed thirty grammes of the sulpho-vinate of soda for a rheumatic patient. One hour after having taken about a third of the dose, the patient was pale, the features were pinched, the skin was cold, the power of speech was abolished, the respiration was imperfect, voluntary movement was impossible; there was a disgusting taste in the mouth. M. Lagarde tasted the potion, and perceived that a mistake had occurred. The patient having vomited a good deal, the doctor directed his attention to the application of heat. Death soon occurred. M. Lagarde, who had forgotten the draught that he had tasted in order to tranquillize the patient, was taken with serious symptoms three or four hours afterwards,—paleness of the face, and paralysis successively of the arms, legs, muscles of respiration, sphincters of the bladder and rectum; the intelligence was preserved. M. Lagarde thought himself dying, but the symptoms subsided, and eventually disappeared; for a month, however, the doctor, who had become much emaciated, was weak and suffering.

According to M. Wurtz, the salts of baryta are dangerous not so much by the local irritation they produce, as by the action they exercise upon the nerve-centres, and particularly upon the spinal cord.

The Topography of the Ureters in the Female (H. von Luschka: *Arch. f. Gynäkologie*, iii. 373–380: quoted from the *Centralblatt f. die Med. Wiss.*, No. 41, 1872).—The average length of the female ureter is 26 centimetres, and its thickness about 5 millimetres (—$\frac{1}{6}$ in.). The abdominal portion gains a diagnostic importance, since, in cases of excessive retroflexion of the uterus, it is of practical interest that this portion of the ureter on the left side may, from its situation, communicate, by ulceration and adhesion, with that part of the sigmoid flexure which inclines towards the rectum.

That part of the ureter which passes through the inferior pelvis pursues a very oblique course, from behind forwards and from without inwards. The relations sustained by this part of the ureter to the uterus are very important as well as varying, from the physiological mobility of the latter organ. More frequently the uterus inclines towards the right ureter, since the rectum obliges it to assume that position. Beneath the peritoneal limits, the ureters run through the peri-uterine connective tissue, and subsequently cross the lateral end of the base of the broad ligaments. The assertion that the ureters descend through Douglas's space to the fundus of the pelvis is incorrect, according to Luschka. After crossing the round ligament and passing under the hypogastric artery, both ureters reach the supravaginal portion of the cervix uteri.

In the region of the fundus of the vagina, the ureters are only about one-fourth of an inch from the vagina, and finally touch its anterior wall for a distance of $1\frac{1}{2}$ centimetres (half an inch). With the exception of this locality, the ureters are separated from the genital organs by connective tissue and venous plexuses. These relations are especially important for "the where" and "the how" in cases of uretero-vaginal fistulæ.

Suppression of Perspiration (*Centralblatt*, No. 44, 1872).—Socoloff gives an abstract of the results which follow varnishing of the skin and suppression of the cutaneous secretion:

1. A few hours before the death of the animals so treated, clonic and tetanic spasms appear in various groups of muscles, while the temperature in the rectum sinks in a marked degree.

2. Enveloping the animals in wadding did not serve to raise the temperature or to arrest the fatal result.

3. Respiration of oxygen proved ineffectual to resuscitate the animals.

4. In the stomach ulcers were observed, the result of deep extravasations.

5. Albumen appeared in the urine very soon after the skin was varnished.

6. In all cases a diffuse parenchymatous inflammation of the kidneys was observed,—sometimes swelling of the cells, and sometimes fatty degeneration. This result was independent of the nature of the varnish used, whether turpentine varnish, gelatine, or gum.

Lang (*Arch. der Heilkunde*, 1872) investigates the cause of death when the skin has been varnished. In addition to other phenomena, he found an hour or two after death "triple phosphate" crystals in various parts of the body, and some of the uriniferous tubules blocked with a finely granular dark mass. He thinks that the triple phosphate crystals are the result of decomposition of urea, and that the cause of death is uræmia.

Variations in Women's Milk resulting from Insufficient Food (*London Lancet*, Sept. 1872).—Dr. Decaisne lately reported to the Académie des Sciences the results of his observations on forty-three women who suckled their infants on insufficient food during the siege of Paris. Such women either produced abundant and good milk and their children throve, whilst they themselves became greatly emaciated, or they produced but little milk and that of a bad quality, so that the children throve badly, and for

the most part suffered from choleraic diarrhœa; or, lastly, they produced scarcely any milk, and the children died. The following table shows analyses from the three various types:

		Butter.	Casein.	Albumen.	Salts.	Sugar.
1.	Fasting	3.10	0.24	2.20	0.20	6.24
	Well fed	4.16	1.05	1.15	0.30	7.12
2.	Fasting	2.90	0.18	1.95	0.16	7.05
	Well fed	5.42	1.15	0.95	0.25	7.05
3.	Fasting	2.95	0.31	2.35	0.31	5.90
	Well fed	4.10	1.90	1.75	0.31	5.95

It is interesting to notice that the albumen and casein taken together are nearly the same both in the fasting and the well-fed state, though they seem to have an inverse relation to each other.

Treatment of Anthrax by Subcutaneous Aspiration (*Le Mouvement Médical*, January 4, 1873).—We believe that the most effective treatment of anthrax is by crucial incision. Anthrax may also be opened subcutaneously (J. Guérin); an operation which has the advantage of being less painful than the preceding. For timid patients the following treatment may be of service: The canula of a hypodermic syringe is introduced into the centre of the tumor, and pus, if any be present, will rise on drawing the piston. The syringe is detached and emptied, leaving the canula in the tumor; it is then readjusted to the canula, and the piston drawn so long as pus continues to rise; when the pus is completely evacuated, the canula is taken out, and the following preparation is applied to the tumor:

℞ Collodion, 4 grammes,
Castor oil, gtt. xx,
Phenic acid, ogr. 25,
Tannin, 1 gr. 30.

The applications are to be made until a sufficiently thick layer is obtained.

Rupture of the Uterus. (*Le Mouvement Médical*, December 21, 1872: by De Soyre).—The case is that of a woman with a slightly contracted pelvis, and pregnant for the second time. When the head became engaged, a spontaneous rupture occurred immediately above the cervix, measuring five or six centimetres. Flooding ensued, and the patient died suddenly. According to MM. Chantreuil, Cornil, and Lucas-Championnière, there is, probably, in cases of rupture, a degeneration of the muscular fibres of the uterus. M. Chassaignac recalls some researches that he made in conjunction with Dezeimeris, pointing to a friability of the uterine fibres as a frequent cause of rupture. Another cause, entirely mechanical, is when the uterus is compressed against the prominent upper border of the pubes.

La Déformation Toulousaine.—Under this title M. Paul Broca describes (*Bull. de la Soc. d'Anthropologie*, 1872, and *Journal of Anatomy and Physiology*, Nov. 1872) a deformity of the skull met with in the people of Toulouse and its vicinity. It was originally carefully studied by M. Gosse, who showed how it was produced by bandages applied to the head in infancy. Broca's observations are of value in showing the modifications which take place in the shape of the brain in these deformed skulls.

MISCELLANY.

Horse-Flesh as Food.—*The Clinic* of December 28 quotes from the *Allgem. Militär-ärztl. Zeitung* of November 24 the following:

"It has long been known in Germany that horse-flesh was perfectly wholesome, and numerous scientific writings exist which prove that this meat has long been a staple article of diet among certain peoples, as it is even now in certain parts of Germany. The distinguished military surgeon Larrey, and the no less distinguished Geoffroy Saint-Hilaire (recently dead), have written papers on this subject in the interest of the poor. Decroix, a skilful and most industrious veterinary surgeon, has taken up the idea anew with characteristic zeal. De Quatrefages, member of the Academy of Sciences, has lent it also his support in the name of the Society for the Protection of Animals. This society has shown the great value of horse-flesh in the later years of the life of the horse, after it has become incapable of work, when it has not been subjected to cruel treatment or insufficient nutrition. This has led owners to spare their horses, and has enabled them to sell them to advantage after their capacity for labor is over.

"The sanitary councils of Paris and of several of the provinces permitted the erection of slaughter-houses for the preparation of horse-flesh, and this meat, being only half as dear as beef, found many purchasers. The use of horse-flesh did not meet with extensive employment, however, until the siege of Paris, under the urgent necessities which then existed. This necessity it was which quickly overcame all prejudices existing up to that time. From this time on, the value of horse-meat was accepted without dispute, as it has been long ago established in science and was now evident in the personal experience of every one.

"It was found that the mare always furnished the best meat; next in value ranked the gelding. The stallions were of least value. The flesh of the healthy horse was always better and more edible than that of old, lean, or sick animals. Other things being equal, the flesh of the healthy horse furnished a meat containing ten per cent. more nutritious matter than that of the ox."

Fig-Leaves (*Boston Medical and Surgical Journal*).—According to the *Lancet*, there may be observed in the Indian collection at the International Exhibition, in a case of personal ornaments placed against the wall near the southeastern angle of the court, a pair of silver leaves exactly copied from the oval leaves of the Indian fig-tree. In the same and in other cases will be found a variety of metal ornaments of the conventional heart shape, and others of the ecclesiastical piscina, attached to some form of cincture or girdle. All these variations of the leaf-form are used by the Hindoo girls to cover the vulva, and not seldom as their sole article of attire; while the heart and piscina forms are merely conventional copies of the original. This relation between the conventional heart shape and the female sexual organs possibly explains the first use of the former as a symbol of love; and it may also be assumed that the piscina was a heathen emblem, a relic of the phallic worship of some far-back Aryan stock, before it was adopted as a Christian one. The young ladies who purchase valentines, and the architects who copy mediæval decora-

tions, have been about equally ignorant of the meaning of the forms they have assisted to perpetuate.

The modern jewelry collection contains also objects of sanitary interest, in the shape of the thumb-rings, furnished with mirrors, which are worn by Hindoo women. These rings are used for the examination of the genitals, in order to be sure that they are cleansed effectually.

MEDICAL RESPONSIBILITY.—*Le Mouvement Médicale* of December 21 says, "The court of Riom gave, on the 3d instant, an opinion of great importance concerning the principle of medical responsibility. M. Ambroise Tardieu sustained, by a fall, a fracture of one of the bones of the fore-arm. Dr. P. was immediately called in to attend the patient. He applied a dressing which, by its great compression and mal-application, soon caused excessive pain. In spite of the sufferings and complaints of the patient, the physician for five days refused to loosen the dressing, and it was only on the demands of an interne of one of the Paris hospitals, a brother of the patient, who had hastened to him when he heard of the accident, that Dr. P. concluded to remove it. But it was too late. Gangrene from compression was observed, and symptoms of the gravest kind followed. For a long time the physicians summoned to take the place of Dr. P., who had discontinued his visits, feared that amputation would become necessary. They succeeded in avoiding it by careful attention; but from the loss of motion and sensibility the usefulness of the arm was destroyed. The civil court of Clermont, before which Dr. P. was arraigned, after hearing the testimony of physicians summoned to describe the character and the consequences of the treatment instituted by Dr. P., entered judgment, declaring the latter responsible for the accidents following his malpractice and his imprudence, and sentenced him to pay four thousand francs damages.

"Dr. P. appealed from this judgment. But the court, after hearing the pleading of M. Nony for Dr. P. and of M. Vernet for M. A. Tardieu, confirmed the judgment already given."

CHANGES IN THE PARIS HOSPITALS.—In consequence of the death of M. A. Richard, the retiring of M. Giraldès and M. Marjolin, and the transference of Professor Verneuil to the chair of clinical surgery of the Pitié, the following changes have occurred in the surgical service: M. Le Fort goes from the Lariboisière to the Beaujon, M. Panas from the Saint-Louis to the Lariboisière, M. Tillaux from the Saint-Louis to the Lariboisière, M. Péan from the Saint-Antoine to the Saint-Louis, M. de Saint-Germaine from the Saint-Antoine to the Hôpital des Enfants Malades. M. Marc Sée goes from the Midi to the Sainte-Eugénie, M. E. Cruvelhier from the Salpêtrière to the Saint-Louis. M. Duplay leaves the Lourcine for the Saint-Antoine. M. B. Anger goes from the Maternité to the Saint-Antoine, M. Meunier from the Bicêtre to the Salpêtrière. M. Horteloup, Surgeon of the Central Bureau, is stationed at the Midi. M. Lannelongue, Surgeon of the Central Bureau, is stationed at the Bicêtre. M. Dubreuil, Surgeon of the Central Bureau, is stationed at the Lourcine. M. Polaillon, Surgeon of the Central Bureau, is stationed at the Maternité.

MILITARY MEDICAL APPOINTMENTS.—By official order, the following appointments have been made to the commission designed to arrange the reorganization of the Military Health Service: MM. de Martimprey, General of Division; Uhrich, Intendant-General Inspector; Blot, General of Brigade; Blaisot, Military Comptroller; Laveran, Medical Inspector, Director of the School of Military Medicine; Perier and Marit, Medical Inspectors; Devèze, Colonel of Engineers; Gaffiot, Sub-Comptroller of 1st class; Brault, Medical Principal of 1st class; Pierron, Officer of Administration, Secretary. Total, 12.

In discussing medical questions the physicians and apothecaries are in the minority.

"*Plus ça change, plus c'est la même chose!*" is the editor's comment.

THROWING COLD WATER ON IT.—The *British Medical Journal* says that at a recent meeting of the Clinical Society, Mr. Campbell De Morgan in the chair, an interesting communication on the treatment of cases of pyrexia of phthisis by cool baths was read by Dr. C. Theodore Williams, and led to a considerable amount of discussion. The President made some pertinent remarks regarding the present use of cold water in the treatment of pyrexia. He alluded to the period when it was first recommended and carried out by Dr. Currie; and, as an example of the disbelief in its value entertained by the profession in the early part of this century, and their behavior towards the advocates of the cold-water treatment, he quoted the following lines on Dr. K., a disciple of Currie's, from the pen of the late Mr. H. Chudleigh Standert, of Taunton:

"The solid rock the Hebrew smote,
Amidst the desert wild;
The bounteous waters issued forth,
And all the desert smiled.

"His stolid head our prophet smote,
As rugged and as wild;
The water-system issued forth,
And all the doctors smiled."

TRAFFIC IN DIPLOMAS.—The following letter, with an accompanying circular, has been received by the editor of the *Dental Cosmos* from a Parisian dentist to whom it was sent:

[Translation.]

"JERSEY, ENGLAND, October 30, 1872.

"SIR,—As in your profession it ought to be very useful and advantageous to you to have the title of Doctor in Dental Surgery, and to possess the diploma thereto belonging, I have the honor to inform you that I have it in my power to have you dignified as such by the American University of Philadelphia, whose rules and regulations I remit you. I undertake all the formalities at my expenses, risks, and perils; thus you will obtain your diploma without inconveniencing yourself. The total sum of expenses will amount to six hundred francs; after that there will be nothing more to pay.

I am at your service to be useful and agreeable to you, and I pray you to accept my most sincere regards.

"P. F. A. Van der Vyver,

"46 Rue du Roi (*i.e.* 46 King Street.)"

Disgraceful Conduct of Medical Students.—A Montreal correspondent of the Toronto *Globe* says, "The medical students at Victoria College, Montreal, are becoming the disgrace of the city, and are reported to be completely beyond the control of the professors. A few days ago a party of them stole a body from their own dissecting-room, took it to McGill Medical College, received their price, and had a drunken spree on the proceeds. Since then they have been accused of stealing, in broad daylight, a corpse from the Hôtel-Dieu, their own hospital, only dead a few hours, and unburied, of taking it to a college and selling it, and spending the money in a similar way."

Preparatory School of Medicine of Bordeaux. —*Le Mouvement Médicale*, December 21, quotes from the *Bordeaux Médicale* as follows: "In our last number we gave the number of matriculations at the School of Lyons. Those of the School of Bordeaux are as follows: For 1871–72, 286; for 1872–73, 325. We conclude from this that the prosperity of the School of Medicine of Bordeaux now surpasses that of its rival of Lyons."

The following curious advertisement appeared in one of the Cincinnati papers the other day: "Personal.—Wanted—The undersigned, a healthy young man, unable to procure other employment at which he can make an honest living, desires to inform Professors of Medicine and Surgery that he will submit himself to experimental operations of almost any description, for reasonable compensation. Address Vivisection."

Suicides in England.—Suicides are reported to have increased in England, in the last six years, from an annual average of sixty-six to every million of population, to an annual average of nearly sixty-eight to the million. The annual average of suicide by drowning has increased; that by hanging has diminished.

Dr. Halleck was recently appointed Chief Physician of the Insane Asylum, Ward's Island, with instructions to examine into its condition, and report the changes necessary for its efficient management.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending Jan. 25, 1873, were 356: 197 adults, and 159 minors. 13 were of bodies brought from the country; making the mortality of the city 343. Among the causes of death were:

Consumption of the Lungs	44
Other Diseases of the Respiratory Organs	68
Diseases of the Circulatory Apparatus	19
Diseases of the Brain and Nervous System	56
Diseases of the Digestive Apparatus	23
Zymotic Diseases (one from Smallpox)	27
Typhoid Fever	8
Casualties	7
Cancer	6
Debility (including "Inanition" and "Marasmus")	42
Still-born	20
Old Age	10

(The interments reported for the week ending Jan. 27, 1872, were 490.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

	Thermometer. Max.	Thermometer. Min.	Barometer. (2 P.M.)
Jan. 19	26.0°	20.0°	30.18 in.
" 20	36.0	21.0	30.14 in. (Rain.)
" 21	40.0	32.5	29.83 in.
" 22	37.5	35.0	30.16 in.
" 23	35.0	29.0	30.20 in. (Snow.)
" 24	55.5	29.5	29.76 in. (Rain and snow.)
" 25	33.0	21.0	30.22 in.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JANUARY 14, 1873, TO JANUARY 20, 1873, INCLUSIVE.

Girard, A. C., Assistant-Surgeon.—To report by letter to the Commanding General, Department of the South, for assignment to duty, S. O. 12, War Department, A. G. O., January 15, 1873.

Weisel, Daniel. Assistant-Surgeon.—To report by letter to the Commanding General, Department of the South, for assignment to duty. S. O. 12, c. s., War Department.

NAVY NEWS.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY, FROM DECEMBER 12, 1872.

Assistant-Surgeon C. A. Siegfried,—To U.S.S. Richmond.

Assistant-Surgeon J. M. R. Simmons,—Died at Naval Hospital, Phila.

Assistant-Surgeon Wm. A. Couvin,—To the Naval Hospital, Chelsea, Mass.

Assistant-Surgeon George O. Allen,—To the Receiving Ship Ohio, Boston, Mass.

Surgeon M Bradley,—Detached from Naval Station, Mound City, Illinois, and to Navy Yard, New York.

P. A. Surgeon F. M. Dearborne,—To U.S.S. Supply.

A. A. Surgeon J. W. Elston,—To Naval Station, Mound City, Illinois.

P. A. Surgeon D. Dickinson,—To the Naval Hospital, Yokohama, Japan.

P. A. Surgeon H. M. Rundlett,—Waiting orders.

Medical Director George Maulsby,—Retired.

Assistant-Surgeon E. C. Thatcher,—Sick leave.

Assistant-Surgeon W. B. Davis,—To U.S.S. Saugus.

Assistant-Surgeon P. P. Bieley,—Waiting orders.

Assistant-Surgeon H. M. Martin,—To Navy Yard, Washington, D.C.

Surgeon A. C. Rhoades,—To U.S.S. Guard.

Surgeon J. S. Knight,—To Receiving Ship Ohio, Boston, Mass.

Assistant-Surgeon William G. Farewell,—Leave of absence.

The Naval Medical Board for the examination of candidates for admission and promotion in the Medical Staff of the Navy has reconvened at Washington, with the following detail:

Medical Director William Grier, President.

Medical Inspector Thomas J. Turner, Medical Inspector John Y. Taylor, Medical Inspector Albert L. Gihon, Members; and Surgeon Philip S. Wales, Recorder.

[About twenty-five vacancies exist in the grade of Assistant-Surgeon.]

SATURDAY, FEBRUARY 8, 1873.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 274.)

LECTURE II.

EXAMINATION OF THE LARYNGEAL IMAGE IN DETAIL.

HAVING in the preceding lecture considered the different methods employed in making laryngoscopic or rhinoscopic examinations, it remains for us to study the images of these parts as seen in the healthy state, before going to the consideration of morbid conditions and changes occurring in them.

We must content ourselves with referring the reader to any of the more extensive treatises upon anatomy for a detailed description of these parts; that of either Henle or Luschka will be found very complete so far as relates to the anatomy of the larynx.

The most conspicuous structure attracting attention in the laryngeal image is the epiglottis, whose free portion, jutting upwards from the base of the tongue, renders it easily recognized. Directing our attention to this cartilage, we perceive an anterior and a posterior surface, and an upper arching crest, frequently indented; from its lateral borders is given off on either side a pharyngo-epiglottic fold of mucous membrane, arching upwards and forwards to join the posterior palatine arch as it terminates in the lateral pharyngeal wall. As this fold leaves the epiglottis, we distinguish another and thicker fold, leaving the same point at nearly right angles, and stretching curvilinearly backwards to the arytenoid cartilages. This is the ary-epiglottic fold forming the superior free border of the quadrangular membrane of the larynx. The anterior or lingual surface of the epiglottis is seen to be slightly concave from above downwards, and strongly convex from side to side, while its posterior surface is concave and convex in the opposite directions. Upon observing the posterior or laryngeal surface of the epiglottis, we notice that it swells out abruptly into a considerable belly or pad, which tapers down to its point of attachment.

This tubercle or pad of the epiglottis, also known as the "cushion of the epiglottis," is formed chiefly by an aggregation of mucous glands and adipose tissue. It very often projects sufficiently to cut off the view of the anterior portions of the vocal cords attached to the intermediate plate of the thyroid cartilage below. The normal color of the pad is quite red; and by artificial illumination it will have a deeper color than by sunlight, a point to be borne in mind, lest the diagnosis of congestion be improperly made. Stretching from the middle line of the lingual surface of the epiglottis to the raphé of the tongue is seen the median glosso-epiglottic fold or frænulum of the epiglottis. It is a small, sharp-edged membranous fold, enclosing the glosso-epiglottic ligament, and serves to force the epiglottis to participate in the movements of the tongue. Upon each side of this fold, which is strongly raised when the tongue is protruded, there is seen an indentation, sometimes shallow, often deeply depressed. These are the *lingual sinuses*, termed the glosso-epiglottic fossæ or sinuses by some,—the valleculæ by others. When shallow, they gradually become lost in the lateral border of the tongue; but more frequently they are strongly depressed at the frænal outline, and, becoming less deeply marked on either side, are bounded exteriorly by a sharp fold of the mucous membrane of the sides of the tongue, called the lateral glosso-epiglottic fold. These lateral folds do not enclose any ligament, and, though generally found to exist post-mortem, are very frequently absent in the living organ. In the floor of these sinuses we are able sometimes to discern with the laryngoscope the position of the greater horn of the hyoid bone, which appears as a clear, longish-oval projection behind and extending outwards. These lingual sinuses often afford lodgment for articles of food and various foreign bodies, and they are not unfrequently the site of morbid processes, especially of tuberculous, scrofulous, or syphilitic ulcerations; cystic growths have also been seen in them. We have devoted considerable space to the apparently unimportant lingual surface of the epiglottis, but the importance of always examining it cannot be over-estimated, as there are a number of cases on record in which long-continued throat-disease had resisted topical applications to the larynx,—diseases which the laryngoscope revealed to be ulceration of these sinuses, soon healed by proper local treatment.

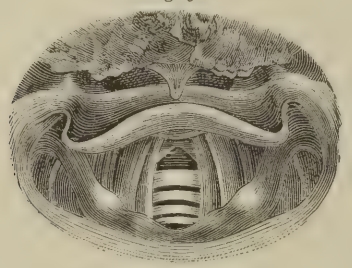
The color of the epiglottis is a light red, veiling a yellowish white, being less pronounced at its edge, where the color of the cartilage is more distinct,—much like the color of the conjunctival membrane of the eyelid, to which it was compared by Störk. Posteriorly the red deepens. The thickness of the epiglottis varies from a sharp thin edge—hardly a line—to a thick stump of several lines; and, when swollen, it may be as thick as a finger. It is also very variable in shape: sometimes it is long, narrow, and pointed; sometimes the sides roll in together posteriorly until they nearly touch; sometimes it is curled inwards with a contraction in the middle, which has been called the Omega-shaped epiglottis. This latter condition is either congenital or acquired by the contraction of cicatricial tissues. Ordinarily the epiglottis will be found to overlook the laryngeal entrance at an angle of from forty to sixty degrees; but it is sometimes depressed backwards much more, so that it may entirely cut off the view into the larynx.

Outside the ary-epiglottic fold, between it and the inner face of the thyroid, we see the triangular *pyramidal sinus*, which begins on each side of the free border of the epiglottis as a small, dark, deep

fossa, becoming more and more conical as it descends, until it is finally lost at one end of the transverse furrow marking the commencement of the œsophagus. The outer wall is formed by the inner face of the wing of the thyroid cartilage, and above this is the hyo thyroid membrane and then the hyoid bone; on the inner side is the quadrangular membrane, which forms a vertical angle anteriorly with the wing of the thyroid; and behind, it is bounded by the posterior wall of the pharynx. It is lined by the common pharyngeal mucous membrane, and along its angular floor there is a chain of glands often involved in disease of these parts. These pyramidal sinuses are sometimes entirely empty; sometimes they contain mucus, and sometimes a sort of cheesy deposit; they often afford a lodgment for foreign bodies, and they are frequently involved in pharyngeal troubles.

When the tongue is protruded and the epiglottis well raised (Fig. 5), we gain a view of the whole

Fig. 5.



The Laryngoscopic Image.

circumference of the superior laryngeal aperture. It is of a cordiform shape, wider in front than behind, sloping obliquely downwards, and terminating behind in the vertical inter-arytenoidal fissure. Its border in front is the free rim of the epiglottis; then, on either side, the ary-epiglottic fold, which arches backwards in the form of a bow until it reaches its arytenoidal attachment posteriorly, where it surrounds the rounded eminence of the cartilage of Santorini; and the two arytenoids, with their connecting muscle and mucous fold, complete the border posteriorly. The ary-epiglottic fold is divided into two unequal festoons by a swelling, in front of the Santorinian cartilage, enclosing the staff-like cartilage of Wrisberg, surrounded with glands and adipose tissue. The color of the ary-epiglottic folds has been well compared by Störk to that of the gums. The eminences of Wrisberg and Santorini are of a rather lighter color than the rest of the mucous membrane.

About half an inch below the superior aperture of the larynx are seen the *ventricular bands*, often still improperly designated as false vocal cords. They appear as broad mucous folds of a red color, and are formed by the mucous lining of the larynx folding under on itself, and leaving between it and the upper surface of the vocal cord of the same size—seen immediately below as a white, glistening band extending from before backwards—an oblong interval, which is the entrance into the Morgagnian ventricle of the larynx. By means of a deep inspiration, especially if short, sudden, and following vocalization, these ventricles can be rendered more distinct, and a separation of their walls be observed dilating the cavity. The size of the ventricles, or rather the space constituting them, varies. The mucous membrane lining the laryngeal sacs is thickly studded with the openings of numerous follicular glands, situated in the sub-mucous connective tissue. The laryngeal surface of the sac is covered by the inferior portion of the arytenoepiglottideus muscle (*compressor sacculi laryngis* of Hilton), which compresses it and discharges its secretion upon the true vocal cords, which, being themselves unprovided with glands, are thus lubricated.

The healthy *vocal cords* are easily recognized by their rapid movements during vocalization, and by their striking white, semi-metallic lustre,—at times a mother-of-pearly white in the female. When the two vocal cords are approximated in phonation, the entire breadth of the horizontal surface, forming the floor of the upper laryngeal cavity, is brought to view. The chink or fissure between the free margins of the vocal cords constitutes the *rima glottidis*. Its length varies from ten to thirteen lines, being longer in the male than in the female; in children it is much shorter; and, when fully dilated by a deep inspiration, the space across will vary from six to ten lines. Each cord consists of a compact band of parallel fibres of the thyro-arytenoid muscle, of elastic and fibrous tissue, arranged in prismatic form, the base pointing outwards, so that a vertical section shows the upper surface horizontal, and the lower surface taking an oblique direction downwards and outwards.

The posterior points of insertion of the vocal cords are seen with good illumination as yellowish spots,—the *maculæ flavæ*, which mark the position of the vocal processes of the arytenoids.

When the epiglottis is well erected, as by the emission of a high musical note, so that the anterior parts of the vocal cords can be discerned, we see beneath the small end of the pad of the epiglottis, immediately below the junction of that cartilage to the thyroid, and separating the anterior attachments of the ventricular bands, a well-marked, pinhead-like pit or foramen (*fovea centralis* of Merkel) in the mucous membrane. This fovea centralis communicates directly on both sides with the anterior entrance into each Morgagnian ventricle, being continuous below with a shallow groove formed by a short fold of the laryngeal mucous membrane, which stretches across from the anterior end of one vocal cord to the other. It is very small in the human subject, but quite large in some of the lower animals; in the horse it seems to constitute a middle ventricle to the larynx.

As already mentioned, the form of the rima glottidis varies. During ordinary respiration it is a narrow lozenge-shaped interval, somewhat enlarged and rounded behind. When fully dilated, the rima assumes the form of an isosceles triangle, with the base behind. The form of the rima varies greatly during phonation, and may become elliptical, oval, or only opened anteriorly or posteriorly, as the

cords are contracted in different degrees by the complex laryngeal muscles in the production of the various vocal sounds. In the formation of the head-notes, the arytenoid cartilages are observed to come together, and only the anterior or ligamentous portion of the rima is seen to gape. In the formation of the chest-notes, the entire cord is seen to vibrate; but in the production of the falsetto notes the vibrations of the cord are limited to the free margin of its membranous portion.

The mucous membrane, extending from one arytenoid cartilage to the other, is more or less plicated, and is known as the *commissure* of the arytenoids. It is best examined when the arytenoids are widely separated, and is one of the most frequent sites of ulceration in connection with phthisis.

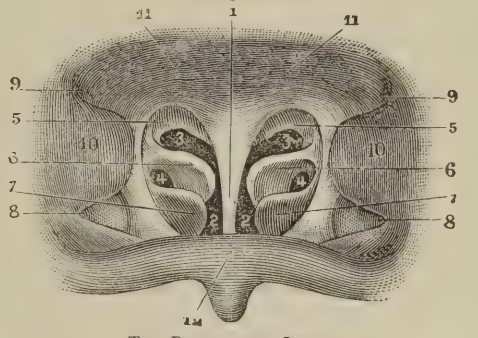
Below the vocal cords appears the broad yellow cricoid cartilage, and below it again the rings of the trachea are seen elevating the mucous membrane. To obtain an extended view down the trachea, the mirror must be held more perpendicularly, and a deep inspiration made, so as to open the glottis to its fullest extent, and then, by a little manipulation reflecting the light more anteriorly, we are enabled to see the tracheal rings as narrow bands, colored like the conjunctival membrane of the eyelid, arching across with their concavities downwards, becoming narrower and closer as they are more distant, until the foreshortening is such that they cannot be distinctly counted; and sometimes in this way, when the circumstances are favorable, such as a wide glottis, good light, straight trachea, etc., we obtain a view clear down to the bifurcation of the tube.

In examining the trachea, it is a good rule to elevate the position of the patient so that the eye of the observer shall be below the plane of the patient's mouth; then throwing the light from below upon the laryngoscopic mirror, which must be held horizontally, the light can be reflected clear down the tube; and if the bifurcation be visible, we see behind the last ring (below in the mirror), instead of the complete arch with its concavity downwards, a bright triangular ridge, which often seems to project up into the cavity of the tube, and on either side of this bright projecting line dark disks marking the commencement of the bronchi. In a few cases, where the right bronchus is very straight, a ray of light may be so thrown in as to show several of its rings.

STRUCTURES SEEN IN THE RHINOSCOPIC IMAGE.

The most prominent and easily recognized object in the rhinoscopic image (Fig. 6) will be found to be a bright columnar ridge in the middle, gradually expanding upwards. This is formed by the nasal septum, and has in health a pale yellow or almost white color at its lower portion, but as it expands its color gradually merges into the bright red of the mucous membrane of the pharyngeal vault. The lowermost portion of each nasal opening is generally more or less cut off from view by a horizontally-curved projecting ridge, which is formed by the rising up of the posterior surface of the velum; and thus it often becomes impossible to inspect the inferior meatus just beneath the lower turbinated bone. Projecting from the outer wall of the nares on each side, and extending inwards and downwards to within a few lines of the septum, are seen the middle turbinated bones, covered with a gray-

Fig. 6.



THE RHINOSCOPIC IMAGE.

1, septum of the nose; 2, free space of nasal passage; 3, superior meatus; 4, middle meatus; 5, superior turbinated bone; 6, middle do.; 7, inferior do.; 8, pharyngeal outlet of Eustachian tube; 9, upper portion of Rosenmüller's fossa; 10, lateral wall of pharynx; 11, vault of pharynx; 12, posterior surface of velum.

colored mucous membrane: the free end towards the septum, being very wide, lends to the middle turbinated bone a very deceptive resemblance to a polypus. The superior turbinated bone, above the upper meatus, and still within the passage, is seen as a narrow triangular projection of a light pink color.

At the base of the nasal fossæ, the inferior turbinated bones, partially covering the middle ones, are seen as round dark-grayish-looking projections; above them and to the outside will be observed a dark fissure,—the middle meatus.

Upon each side of the lateral walls of the pharynx, on a plane with the inferior turbinated bone, is seen a projecting ridge, which is the cartilaginous extremity of the Eustachian tube; and in it we observe a triangular depression, which is the pharyngeal orifice of that tube. Behind the protuberance caused by the Eustachian tube and the posterior wall of the pharynx is seen a deep canal running upwards and outwards; this is the fossa of Rosenmüller, and is the point in which the Eustachian catheter is so often lodged in ineffectual attempts at its introduction.

The vault of the pharynx must not be neglected in the rhinoscopic examination, since its mucous covering, so abundantly supplied with follicular glands, is very apt to be the starting-point of some diseased condition, such as glandular hypertrophy, ulceration, adenomatous growths, etc.

The parts that can be seen with the rhinoscopic mirror may be enumerated as follows: the posterior surface of the soft palate and uvula; the posterior and part of the lateral portions of the nose, the turbinated bones, and nasal meatuses; the pharyngeal walls of the Eustachian tube and its orifice; the vault of the pharynx and its lateral walls; and the upper portion of the posterior wall of the pharynx. All of these structures cannot, however,

be seen in one and the same image; but by slowly turning the mirror towards the different regions we gradually obtain a satisfactory survey of the whole in detail. Under the most favorable circumstances, both posterior outlets, both Eustachian tubes, and part of the pharyngeal vault, are seen in one and the same image.

ORIGINAL COMMUNICATIONS.

ON THE OPERATION OF "PERINEAL SECTION" FOR URETHRAL STRICTURE.

BY JOHN H. PACKARD, M.D.,
Surgeon to the Episcopal Hospital, Philadelphia.

THE word "impermeable," as applied to strictures of the urethra, although perfectly distinct in its meaning, is in practice an extremely vague term. For, apart from all other circumstances, there is one very variable element in the matter, and that is the skill of the surgeon. A stricture in which Sir Henry Thompson would find no great difficulty, might be absolutely impassable by the same instrument in the hands of a gentleman of less experience and dexterity. Hence the word "impermeable" does not, and cannot, indicate a certain class of strictures, but simply expresses the fact, in regard to any one case, that all attempts at the introduction of instruments into the bladder have failed and are likely to fail.

It is well known that very often a stricture, which seems extremely obstinate, yields at once to the catheter if the patient is placed in a state of anæsthesia.

If in any case the surgeon cannot, with all the means and appliances at his command, and with the aid of ether or chloroform, succeed in reaching the bladder, that stricture is to him impermeable, and, if the symptoms are urgent, some other plan must be resorted to. And the question may well be asked whether it is safer for a surgeon who finds great difficulty in a case, to work on with catheters, and run the risk of doing damage in his efforts to find the channel, or to lay this latter open at once, and give his patient the chance of a new formation of a urethra of full size.

It becomes, therefore, an important point to determine how far the cutting operation from without inwards, in these cases, is attended with risk. I propose to relate presently seven cases of my own, in which the ultimate results were wholly satisfactory. But it must first be stated that authors are not agreed upon this point of the safety of the procedure; and that the distinguished surgeon before mentioned, who is generally recognized as the highest authority on the subject of stricture, makes a marked difference between the "external division" and "perineal section." He speaks as follows in his excellent article in Holmes's "System of Surgery" (vol. iv. p. 974): "Mr. Syme has advocated the division of the stricture for some exceptional cases, in which, *although a catheter can be passed into the bladder*, no other treatment has afforded sufficient or permanent relief. This operation he has called 'external division,' a term which should be reserved for his method; while it is equally desirable to limit the use of the term 'perineal section' to the proceeding just referred to in connection with strictures which have been found impervious to the catheter." In the next paragraph he says, "There is a growing belief, which has greatly influenced practice, that few, if any, strictures exist through which, if the urine issues externally, a catheter of appropriate size may not be passed in the course of time, with care, gentleness, and skill." He endorses this opinion, and says that he has only twice found it necessary to perform "perineal section."

Subsequently (p. 977) he says, "In reference to the operation without a guide, or the perineal section, the best that can be said of it is, that it is a hazardous proceeding, and no surgeon should entertain the idea of performing it except after thoroughly assuring himself that the stricture cannot be rendered permeable to instruments, and so made amenable to other modes of treatment. In a few cases the operation is performed successfully, but in most there can be little doubt that the route of the stricture itself is not followed, and that the knife makes a new channel through adjacent and often very unsound tissues, very inadequate to perform subsequently the function of a urethra. In many instances the attempt to make a channel to the bladder has wholly failed, and the patient has been removed from the operating-table unrelieved; and in not a few the result of the proceeding has been fatal. This termination, however, is to be anticipated in a large proportion of what must necessarily be the worst cases of their kind. Such views of this operation tend to impress us more strongly with the conviction, that every chance of getting an instrument through the dilated urethra by protracted but gentle endeavors, combined with rest and constitutional treatment, should be exhausted before we consent to resort to perineal section."

Prof. Gross, after justly speaking of Syme's procedure as a mere modification of the old button-hole (*boutonnière*) operation, and describing it, says ("System of Surgery," 5th ed., vol. ii. p. 823), "In the button-hole operation, as the conductor is not passed into the bladder, but only down to the seat of the obstruction, the amount of skill required is much greater than in the ordinary procedure. Indeed, it should never be undertaken unless the surgeon is thoroughly acquainted with the anatomy of the parts, is perfectly self-possessed, and knows how to use the knife. A number of cases have been reported in which death occurred from hemorrhage, shock, pyæmia, erysipelas, or urinary infiltration."

Sir William Fergusson ("System of Practical Surgery," 5th ed., p. 693) says, "In some instances there is such an amount of local disease and continued irritation that life is hardly worth enduring: in other cases speedy death is impending unless the surgeon interferes, and if he cuts into the perineum in the mesial line, divides the stricture and introduces a full-sized catheter along the whole of the urethra into the bladder, he is resorting to an old established practice of surgery which

can scarcely be sufficiently praised. It confers the greatest relief on the patient, and may justly be called a triumph of surgery. It is a formidable operation, however, and as such is not free from danger. Death sometimes follows, and hence the surgeon is cautious in resorting to it, excepting in extremity."

Other authorities might be cited, but perhaps it is hardly necessary. I believe that the continental writers, the French certainly, are but little in favor of the "perineal section."

One other alternative has been by some authors highly praised for the relief of the condition in question, viz., tapping by the rectum. Mr. Oliver Pemberton, in a recent address before the British Medical Association, advocates this procedure quite warmly. (And here we note another of those unavoidable uncertainties of expression, which may well puzzle a young and inexperienced man. "If," says Mr. Pemberton, "the induration of the urethra, and narrowing, be of such an extent as to preclude the idea of dealing with it by external division, I prefer to tap the bladder by the rectum." How is a man to decide what "such an extent" is, if he has never had practical, and especially hospital, experience in cases of this kind?) Tapping of the bladder through the rectum has never been an operation in much favor in this country; I have never known of its performance in this city.

I propose now to relate my own cases, which are taken from the records of my hospital service, and which seem to me to sustain, so far as they go, the value of the operation of "perineal section." One of them is particularly interesting, since the physiological rest, given to the urethra by the incision, made catheterization, impossible at the time, very easy three weeks afterwards.

Case I.—C. H., a colored coachman, came under my care in July, 1861, suffering from complete retention of urine, due to an old stricture,—not, I believe, of venereal origin. After satisfying myself that I could not introduce any instrument, I sent him to the Pennsylvania Hospital, where "perineal section" was performed by Dr. Hewson. By this operation he obtained temporary relief, but the symptoms all returned, the retention was relieved by the bursting of urinary abscesses, and he finally was admitted under my care at the Episcopal Hospital, in 1865, suffering with stricture, fistulæ of great extent, and difficulty of urination. I divided the stricture by perineal section, and laid open the shorter fistulæ, cauterizing the latter with a hot iron, and passed oakum setons through the longer fistulæ. Healing took place without contraction, by means of the steady use of large instruments; all the fistulæ closed, and he has now been for about seven years wholly free from stricture or any difficulty in urination, notwithstanding the fact that he has of late neglected the use of the bougie.

Case II.—August 4, 1867, I operated on a sailor at the Episcopal Hospital, whose stricture would not yield to any efforts at catheterization on my part. On dividing the tissues in the median line, I was fortunate enough to hit the urethra beyond the narrowed portion, which was freely laid open. The case did well, and the man was discharged entirely relieved. (The exact time of treatment in this, as in most of the other cases, I cannot easily ascertain.) Of course I have lost sight of him since, as is apt to be the case with sailors.

Case III.—R. D., æt. 30, was the subject of a traumatic stricture of seven years' standing, caused by a bank of clay caving in on him and fracturing the pelvis. I performed "perineal section" on him on the 26th of October, 1868, at the Episcopal Hospital. With very great difficulty, a grooved director was inserted into the bladder from the wound, and tied in. On the 31st I succeeded in slipping a small silver catheter along the urethra, and, guided by the director, into the bladder.

November 2, a large-sized double-curved instrument was passed, and tied in.

December 11, the urine is noted to have been passed almost wholly through the catheter for a week.

January 17, 1869, the instrument was removed. Two fistulæ existed, one at the seat of operation, and one at the root of the scrotum, caused by the angulation of the tissues by pressure of the catheter. The former healed spontaneously. The other one was twice sutured, and repeatedly cauterized; it finally closed to a mere pinhole, and he was discharged May 4, passing his urine in a full stream. Two years later he wrote me from the interior of the State that he was quite well, and had married.

Case IV.—C. R., æt. 35, was operated on by me at the Episcopal Hospital, October 12, 1869, for an impassable stricture, by "perineal section." He did well, and was discharged with a urethra of normal calibre.

Case V.—September 30, 1870, I operated on J. L., æt. about 35, at the Episcopal Hospital, for traumatic stricture of several years' standing. After many attempts, I failed to get any instrument into the bladder. The urine came away wholly by the wound. About *three weeks afterwards*, I succeeded in passing a silver catheter of small size along the urethra into the bladder, and left it in place. Larger instruments were afterwards passed, and he was discharged cured.

Case VI.—December 21, 1871, I operated on a man at the Episcopal Hospital, William ——, æt. 30, by "perineal section," for the relief of stricture with fistula. He did perfectly well, and is now employed as an assistant in the house.

Case VII.—A. W., æt. 39, slipped and fell on his belly two years ago. About a week afterwards he had trouble in urinating, and was relieved by means of a catheter. He has never since then been able to pass water freely. An abscess formed some three months later, and others have been forming about every three months since that time. He passes about a teacupful daily through the natural channel; the rest dribbles away through numerous fistulæ in the scrotum and perineum.

December 5, 1872, I performed "perineal section," and after much difficulty got a grooved director from the wound into the bladder, and then a small silver catheter the whole length of the urethra.

December 9.—The catheter was removed and cleaned. From this time until the 31st, the removal and cleansing was done daily; and on the 12th of January, 1873, he was discharged entirely cured, with directions to attend to keeping the urethra dilated.

The above cases are only those which have occurred to myself. I have seen a number of others, some sixteen in all, operated on by other surgeons, with good results. Let me not be understood to maintain that this procedure is one to be lightly undertaken, or free from risk; but I think the favorable experience of it in my own hands, as now recorded, may be allowed some weight. The cases requiring it are certainly among the most urgent which come under surgical care.

1928 Spruce Street, Feb. 1873.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROF. S. D. GROSS.

Reported by FRANK WOODBURY.

AMPUTATION OF PART OF THE TONGUE FOR CARCINOMATOUS DISEASE.

UPON looking at this patient (thirty-eight years of age) you see at a glance that he is a sick man; his face is sallow, and his frame is emaciated. He states that since he first began to be sick, nine months ago, he has lost over forty pounds in weight. The quantity of urine voided is normal in quantity and quality. His bowels are open; he has no flatulence, indigestion, nor unusual thirst; his appetite is good, but he cannot eat; his hands and feet are warm; he never had intermittent fever, or night-sweats, but he has a trouble of his tongue, which commenced four weeks ago, in which he experiences constant burning, at times lancinating, pain, which seriously interferes with mastication and deglutition. As he protrudes the tongue, you notice a surface continuously ulcerated, principally on the left side of the median line, extending from the tip a considerable distance back. I can find no enlarged lymphatic glands under the jaw. His diet is necessarily confined to the blandest articles, and such as require no mastication, such as milk, beef-tea, and milk-punch. His face is not pallid or livid exactly, but has a sallow, cadaverous appearance peculiar to the cancerous cachexia.

This may be either of two affections,—syphilis or epithelioma. A man may have a chancre on his lip or tongue by inoculation from a mucous patch, or directly from virus accidentally carried by the finger; or an ulcer may exist here as the result of constitutional syphilis. In such a case, however, the ulcers have well-defined edges, generally with a foul, irregular base, and are not single, but appear in scattered patches; they are not confined to the tongue usually, but co-exist on the fauces, uvula, and pharynx. There would also be evidences of specific disease in other portions of the body, and a distinct history of inoculation, neither of which exists in the present case.

Therefore, by exclusion, and from the appearance, hardness, and peculiar pain, I would consider this epithelial cancer, or cancroid, as it was termed by Prof. Miller, of Edinburgh; or, properly, scirrhus modified by the structure involved. This generally comes without assignable cause. It has been attributed to smoking a short pipe, with the hot stem constantly against the tongue; but this is unsustainable by proof, the disease in some cases occurring in patients who never smoked, while thousands of others escape who are inveterate smokers. Encephaloid disease of the tongue is extremely rare, while colloid and melanosis in this situation are unknown. This disease is most common after the age of fifty, and in the male sex. It commences as a little sore, papule, or crevice, in the tongue; it then gradually spreads and ulcerates, and is the seat of the characteristic pain, which is generally worse at night. The surrounding part is hard, from infiltration of plastic lymph and cancer-cells, and the organ can no longer be used in mastication, on account of its stiffness and the pain produced by moving it. The disease finally extends to the gums, the teeth fall out, the submaxillary glands enlarge, and the system sinks under the exhaustion from the cachexia which becomes established, and from impaired nutrition. The fatal result generally supervenes within a year or eighteen months from the onset of the disease.

The only operation likely to afford any relief would be excision of the affected part, not in the hope of cure, but to palliate the symptoms. But he is not in a condition to bear such interference at present; his general health must first be improved by relieving his pain and allowing him to sleep, by giving him gr. xxx of chloral at night. He shall have plenty of soft, nourishing food, such as milk-punch, animal broths, soft-boiled eggs, etc., with daily open-air exercise, and may wash his mouth frequently with dilute solution of permanganate of potassa. It is important that the patient should not swallow the secretions, as pyæmia might result. I have seen this occur in two cases,—in one after removal of a polypus, and in the other from plugging the posterior nares.

November 20 (one month later).—The patient's health is much improved, and he returns for operation. The ulcer is now rapidly spreading beyond the median line of the tongue, and also on the under surface. Ablation, or excision of the tongue, is not required in this case; removal of the offending part is all that will be attempted. This should not be done with the knife, as there would be severe, perhaps uncontrollable, hemorrhage from the vessels, which are now abnormally increased by the disease. This is one of the operations to which the écraseur is eminently applicable, as it crushes and lacerates the vessels, producing rapid coagulation of the blood and diminishing hemorrhage. Before applying the chain of the instrument, the tongue is transfixed by three stout steel pins at the line where you wish to amputate. The écraseur is then applied and the diseased mass removed. The lingual artery and a few small vessels required the ligature; the capillary oozing was checked by ice. The operation was performed without an anæsthetic, at the patient's request. An anodyne will be given immediately, and the former treatment continued, to which shall be added quinine and iron.

[The patient was subsequently shown at the clinic, and reported himself as being much more comfortable. He made a good recovery from the operation, and there was no secondary hemorrhage. He was then able to speak so as to be understood, although half of the anterior portion of the tongue had been removed transversely. He afterwards complained of a severe sore throat, and within two months from the operation died from debility. No examination could be obtained.]

IMMENSE NÆVUS ON SCALP.

This child (nine months old) is brought before you to exhibit the progress of a nævus maternus without operative interference. This disease, although undoubtedly of congenital origin, yet was then so small that it was not noticed until several weeks after birth. It was then on the scalp, but gradually spread, so that it now extends over the top of the head towards the right side, and involves the entire left side of the scalp, forehead, face, and neck, distorting the ear and almost closing the eye. The tumor is soft, bluish, pulsates, and is apparently painless.

This is the type of a nævoid tumor. It is composed essentially of dilated capillaries, which are abnormally numerous, having a cavernous structure in parts, resembling the erectile tissue of the corpora cavernosa or the spleen. These tumors vary according as the arterial or the venous element predominates in them: where they are both equally represented, it forms the true aneurism by anastomosis of Mr. Bell. Where the venous element is in excess, there is not such great danger of hemorrhage, and the tumor may be removed by the knife, or the spongy structure torn out by the forceps, as has been recommended by my colleague, Prof. Pancoast.* When the arterial character of the

* *Medical Times*, vol. i. p. 288.

tumor is more marked, as is seen by the scarlet color and decided pulsation, then the risk of hemorrhage would be far greater, and strangulation by the ligature would be the safest operation. Other means of treatment have been recommended, as by injecting styptics, but they are uncertain and dangerous. Some surgeons have cured them, when small, by vaccinating over them. Setons, either simple or impregnated with Monsel's solution, have been used effectively; and large tumors may be obliterated by darning them with these threads, which excite inflammation and plastic effusion, thus occluding the vessels.

The disease here is rapidly spreading, and, if not stopped, will soon involve the entire head and shoulder. I would suggest that the largest portion of the tumor be strangulated by the pins and a stout ligature, and the remaining portion be left for a subsequent operation. By undertaking too much at once, we might increase the danger from pyæmia or erysipelas.

If this child were older, or the disease had existed for a long time, we would undoubtedly find in it phleboliths, formed from plasma which had undergone the earthy degeneration.

TRANSLATIONS.

VON OPPOLZER'S LECTURES ON DISEASES OF THE ŒSOPHAGUS.

Being the latter portion of the first part of the second volume of Oppolzer's Vorlesungen über specielle Pathologie und Therapie, Erlangen, 1872.

Condensed from the German of Dr. Emil Ritter von Stoffella,

BY DR. J. SOLIS COHEN.

II.

ŒSOPHAGITIS.

INFLAMMATION of the œsophagus is either catarrhal, croupal, or pustular. It may extend over a large portion of the œsophagus, or be confined to a small portion. It occurs as an idiopathic affection less frequently than as consecutive to some other affection. Besides these three designated forms of inflammation, there is that of ulceration; and, in poisoning with caustic substances, more or less extensive gangrene of the œsophageal mucous membrane.

Acute catarrhal œsophagitis may result, idiopathically, from change of temperature; from the deglutition of very hot or very cold viands, or of irritating or caustic substances, as in moderate degrees of poisoning; from the mechanical irritation of sharp impacted bodies, as bits of bone, etc. It may occur consecutively by extension of gastric catarrh, or catarrh of the mouth and pharynx. It may occur symptomatically in the acute exanthemata, especially in measles and typhus fever.

Chronic catarrhal œsophagitis may follow acute inflammation of the mucous membrane; or it may follow some long-continued or frequently renewed irritation of the œsophageal mucous membrane; or it may follow habitual stasis of the blood in the veins of the œsophagus. It is encountered particularly in inveterate tobacco-smokers, in individuals who indulge immoderately in alcoholic beverages, and in those suffering with some chronic pulmonary or cardiac disease. Syphilis, too, seems to favor the occurrence of a chronic catarrhal affection of the œsophageal mucous membrane.

Croupal inflammation of the œsophageal mucous membrane is a much rarer affection than catarrhal inflammation. Œsophageal croup exists in combination with croup of the pharynx or larynx, or, in certain cases, in connection with croupal pneumonia. It is also encountered in typhus fever, in the third or fourth week of the disease; in the acute exanthems, especially in smallpox and scarlatina; in cholera; in pyæmia; often, also, in dysentery; and, finally, in tuberculosis and carcinoma.

Pustulous inflammation of the œsophageal mucous membrane occurs principally in the wake of the use of tartarized antimony; or else as one of the phenomena of variola. It is an exceedingly infrequent affection.

Ulcers of the œsophageal mucous membrane result either from the above-enumerated forms of inflammation, especially catarrh, or from traumatic injury, scalding, or the action of corrosive substances. Tuberculous ulcers are encountered very seldom, only; but cancerous ulcers are met with much more frequently.

The symptoms of inflammatory affections of the œsophagus are usually obscure. This is, in part, to be accounted for by the comparative insensitiveness of the organ. Chronic inflammations sometimes pursue their course without giving rise to a single characteristic symptom. Acute inflammations of moderate intensity, or of circumscribed extent, very often occasion only a dull pain beneath the sternum, a feeling of constriction, or a slight impediment to deglutition, and the discharge of a more or less viscid mucus. Vomiting seldom occurs in these cases, and usually only when the pharynx is over-irritated by the accumulations of viscid mucus. Even when the inflammation is severe, the symptoms are often so masked by the symptoms of some co-existing affection, as to divert the physician's attention from the condition of the œsophagus itself. Thus, croup of the œsophagus, which appears in the course of severe scarlatina or typhus, or in connection with croup of the larynx, is in most cases altogether latent.

In those cases, however, in which the inflammation of the œsophagus is idiopathic and acute, and of a certain extent and intensity; and also, it is not to be denied, in a large proportion of cases of secondary catarrhal or croupous inflammation, we find symptoms so characteristic that the disease of the œsophagus cannot be overlooked; and in most instances these symptoms indicate the correct diagnosis. The patients complain of a more or less severe pain in the course of the œsophagus, usually most painful beneath the manubrium sterni or in the pit of the stomach; less frequently between the shoulder-blades. This pain is increased by swallowing, especially of solids, and also by pressure from the outside, if the seat of disease be in the upper portion of the œsophagus. If the inflammation is sufficiently intense, the swelling of the mucous membrane may be so great as to constrict the calibre of the œsophagus to such an extent as to render deglutition not only difficult, but even impossible in marked cases; and repeated attempts to swallow will end in regurgitation, or even provoke vomiting, with the discharge of ingesta, as the case may be, and a greater or less admixture of sanguinolent mucus. Not infrequently a spasm of the œsophagus ensues on deglutition, and in most instances involves the respiratory organs, so that there is a sense of impending suffocation with intense dyspnœa.

It may be remarked, in passing, that it is not so much the swelling of the mucous membrane that impedes deglutition or renders it impossible, as the co-existent inflammation of the muscles, or, at least, their serous infiltration, which impairs their ability to grasp the bolus and propel it farther. The patient exhibits continual anxiety, and constantly complains of a great compression in the chest. Febrile phenomena supervene if the inflammation involves a large extent of surface, and, in isolated cases, may terminate in convulsions.

In the croupous inflammation, it often happens, in addition to the above-enumerated symptoms, that shreds of false membrane are hawked up or vomited,

as in the cases reported by Abercrombie, Winslow, J. Frank, Hennig, and others.

The termination of œsophagitis, if simply catarrhal and acute, is in recovery in a few days, or in chronic catarrh of the œsophagus. Pustulous inflammation following the use of tartarized antimony also terminates, usually, in recovery. Not so, however, where the pustulous inflammation is a manifestation of small-pox, or where croupous inflammation exists. Cases of these varieties usually terminate fatally. Cases of simple inflammation, but intense in character, involving not only the mucous membrane but the subjacent connective tissue also, and denominated "phlegmonous œsophagitis," sometimes terminate fatally within two or three days; or, if this period is passed, at a later date, from the partial or complete adherence of the walls of the œsophagus: in other cases abscesses form, which discharge internally, or externally, and leave a condition of stricture.

The treatment of acute œsophagitis does not require any special therapeutic measures, as a rule. If the inflammation is severe, the parts must be protected against further irritation, and efforts be made to allay that already existing. To this end the patient is forbidden to speak much, or to make much effort in swallowing. Fluid nutriment is given, and demulcent drinks are administered; the latter containing anodynes if required. Thirst is allayed by bits of ice allowed to melt in the mouth, by the sucking of orange-juice, or by rinsing the mouth frequently with acidulated water. Local depletion near the seat of pain is indicated only in cases where the pain is rather high up, and in which relief has not followed the external application of cold, or the subcutaneous injection of narcotics.

The cause of the œsophagitis, when discoverable, must be attended to. Foreign bodies must be extracted. Deglutition of concentrated acids must be treated by the administration of alkaline drinks. Caustic alkalies must be followed by acid drinks; the best of which, according to Orfila's experience, is a mixture of vinegar and water.

The treatment of chronic œsophagitis will depend greatly on the cause of the disease. Syphilitic inflammation is to be handled with antisyphilitic remedies. Disturbances of circulation require the use of digitalis, and of dilute mineral waters. The diet must be attended to; alcohol, and food of all kinds that is liable to produce irritation chemically or mechanically, must be interdicted, or used under certain restrictions commensurate with the degree of dysphagia and the irritability of the œsophageal mucous membrane.

Local treatment is called for, and consists usually in swabbing the diseased tissues with solutions of tannin, alum, iodine, or nitrate of silver; the article last named occupying the chief *rôle* in this connection. It is also recommended to cauterize the painful surface superficially with a weak solution of nitrate of silver as soon as there is reason to fear that the pain is due to the process of ulceration. In addition to this, counter-irritants are applied to the back of the neck, to the region over the dorsal vertebræ; steam-baths and warm plunge-baths are resorted to; and drinks of carbonic acid waters administered. The internal use of iodide of potassium has often been advantageous, especially in cases of circumscribed extent. If stenosis ensue as a result of chronic œsophagitis, it requires special surgical treatment.

After a patient has been relieved of an œsophagitis, even when only moderately intense, the physician should not neglect to advise occasional catheterization of the œsophagus for a period of at least two years; in order to avoid stenosis, on the one hand, or to detect it early, on the other.

Mycosis Septica in a New-born Child (Orth: quoted from *Centralblatt für Med. Wiss.*, No. 41, 1872).—At the post-mortem examination, three days and a half after birth, the author found in the right pleural cavity a large amount of flocculo-purulent exudation, which was in connection with an abscess as large as a cherry-stone, situated on the under edge of the inferior lobe of the lung. The superior lobe of the left lung contained a similar abscess of small size. An examination, thirty hours after death, of the fibrino-purulent matter found upon the surface of the right lung, showed that it consisted of masses composed of small, shining granules and pus-cells.

These collections, or colonies, as well as similar bodies on the pleural surface, were found to contain countless micrococci and small round cells. The abscesses in the lungs contained ordinary pus-cells, without any admixture of fungous elements. The entire parenchyma, however, as well as the cavity of the alveoli, bronchi, and vessels of the rest of the lung, were filled with a countless mass of these same fungi, with a slight admixture of white and red blood-cells. The kidneys and all the other organs were free from these bodies. The mucous membrane of the bladder, however, and the blood revealed the presence of these fungi. The umbilical cord and its vessels were intact. Although the examination was made so long after death, the existence of cold weather inclines the author to think that the presence of the micrococci dates from intra-uterine life, since the mother, before the birth of the child, had severe fever and suffered from a severe perimetritis. The author supposes that the fungi escaped from the blood of the mother into that of the child. Ponfick, in a notice of the case, says that the subsequent dissemination of these bodies through the organism of the child must be regarded as emanating from the abscess in the lung, for the filling of the pleural cavity, as above described, could not have arisen from the circulation, but from the abscesses in the lung.

A Case of Rupture of the Uterus and Escape of the Fœtus with its Appendages into the Peritoneal Cavity—Abdominal Section—Cure (Fourrier: *Bull. Général de Thérapeutique*, tome lxxxiii. liv. 3: quoted from *Centralblatt für Med. Wiss.*, No. 43, 1872).—This accident happened to a woman in her third pregnancy, who had a severe fall six weeks before the termination of gestation, and to whom, before the os had dilated, two grains of ergotine were given by an inexperienced midwife. The occurrence of the rupture was instantly felt; the diagnosis was rendered unmistakable by the presence of two tumors, which were readily recognized as the uterus and the fœtus. The symptoms were very grave, but were not those of general peritonitis. Fourrier made an incision fourteen inches long over the fœtus, on the outer side of the right rectus abdominis, came instantly upon the dead child, and, without any manipulations of the intestines, successfully performed detruncation. He was also able, without altering the surroundings, to remove the fœtus with all its appendages. The gangrenous shreds of peritoneum and clots of blood which filled the cavity were carefully removed, and the wound was partially closed by three sutures.

Convalescence occurred in sixty-two days. At first, disinfection and removal of the sloughing tissues were sources of care; later, a slight phlegmasia and a pyæmiform fever created some alarm. Obstinate constipation was a chief symptom for some time. At the time of publication of these notes the menstrual period had not returned, the uterus was somewhat enlarged, not completely immovable, and greatly inclined towards the left side.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

WE are happy to announce that by an arrangement entered into with a gentleman in London, of high professional standing and well-known literary ability, we shall hereafter lay before our readers, every other week, a letter containing the cream of the professional and scientific news and gossip of that city.

THE "STEERAGE."

ATTENTION has many times been called, with more or less effect, to the abuses which exist on board of emigrant-vessels; and much legislation has been directed to the most desirable end of their correction. Personal observation has shown us that there is a real foundation for complaint, even on the best-managed lines; we can never forget some of the scenes we have witnessed in the "steerage." A great deal of the trouble is fairly to be charged to the low character of the persons who take passage in this way; but by no means can the whole blame be shifted from the owners and managers of the lines.

Our attention has recently been called to this matter by some excellent remarks in the *Public Ledger*, in reference to a published letter describing one of the late voyages of the steamer "Erin," of the London and New York line. The account, as condensed in that paper, speaks for itself better than any amount of generalizing on the subject could do; and we therefore transcribe it:

"The recent developments which lead to these remarks are contained in a letter published by Mr. J. P. McDonnell, of New York, who has just made a voyage from London, via Havre, to New York, in the steamship 'Erin.' His letter is published over his own name; it is entirely dispassionate in its tone; it states the facts without abuse, and even speaks words of personal kindness towards the principal officers of the ship. It is to the still existing scandalous abuses of the 'steerage,' as exemplified on board this particular ship, that he invites attention. The 'Erin' sailed from London for Havre, on her way to New York, at four o'clock, Thursday morning, December 5th. Her sailing-day was the preceding Saturday, November 30th. During these five days her London 'steerage' passengers, among whom were thirty women and children, were detained 'shivering in the cold in the disgustingly filthy Victoria Docks.' This in itself was a gross wrong; but, considering what came afterwards, it was a trifle. At Havre about eight hundred more passengers were taken on, making about eight hundred and fifty in all, and these, with the ship's company, made a total of about a thousand souls on board. There were not 'accommodations' on the ship for this number of people, and at Havre 'bunks' were hurriedly constructed for about three hundred on the 'main deck.' Some of these 'bunks' contained seven or eight persons—men, women, and children—in a space where, by right, there should have been only two persons. Before the close of the voyage, even these wretched 'accommodations' for the 'steerage' passengers were taken from them, and they were all—men, women, and children—stowed away on the 'damp and loose planks of the midships,' which had been used down to this time for the storage of coal, and from which the coal had been taken out to supply the boilers of the steamer during the voyage! After they had been thus stowed away in this 'coal-hole,' Mr. McDonnell says it 'looked like a huge sepulchre.' An American officer, who passed through our recent war, said that 'he never, during his entire career, witnessed a sight so truly pitiable.'

"The picture thus exhibited is by no means the worst in Mr. McDonnell's narrative, the details of some others being of a character that can only be presented by saying the 'accommodations' of the ship were disgusting to the senses, revolting to decency, and could not have failed to be detrimental to health. We pass now to some other matters in the letter. For the thousand souls on board there were but two doctors. Six persons died during the voyage, and one of these could get no medical treatment until the day he died. For all the 'steerage' women and children there was but one stewardess, and at the outset of the voyage there were but three regular stewards for all the rest of the passengers. The result of this was that, in serving out the food, the strong got 'more than their allowance, the weak got none at all.' By the contract, each passenger was entitled to two quarts of water, 'but found it difficult to get even one pint.' The potatoes furnished 'were black and soft as wet soap;' the meat was so

hard and bad that the 'most famished-looking refused to take it,' and the tea and coffee were 'disgustingly nauseous.' The ship itself was in bad condition; her decks were leaky, and the water rained down on the 'steerage;' her midships were not strong; and she leaked to the extent of 'from six to nine feet of water a day,' which the pumps had to discharge. The passengers were promised a sixteen-day voyage, and got in place of it a twenty-eight days' experience of these 'steerage accommodations,' during which the women and children had at no time any protection by means of screens, partitions, closets, or other privacies, which would have enabled them to observe the commonest decencies of life.

"This condensed recital gives but an inadequate idea of the condition of the 'steerage' aboard the steamship 'Erin,' as described by Mr. McDonnell, and it is sufficient to show, either that the laws are not executed, or that some additional chapters are needed to the voluminous legislation about passenger 'vessels propelled in whole or in part by steam.'"

We would be far from depreciating the efforts of the religious world for the reclamation of the heathen; but we would venture to suggest that, while "man's inhumanity to man" finds such illustration as this in the dealings of "Christian" owners of vessels with the unprotected emigrant, there is a field very near home which has not yet been brought to the highest pitch of cultivation. It would seem also as if the societies which advocate "warming the bits before putting them in the horses' mouths," and whose members have such pity for galled and lame animals, might pause a moment to think whether there are not nobler, higher, and more urgent claimants of their sympathies and their benevolent interposition.

NEW JOURNALS.

WE have upon our table two new medical periodicals,—one American, the other Irish.

The American is the *Archives of Scientific and Practical Medicine*, edited by Drs. Brown-Séquard and Seguin. Its typography is worthy of its valuable and interesting contents. The leading article —a report of a case of traumatic brachial neuralgia, treated by excision of the cords which go to form the brachial plexus, by Drs. Sands and Seguin—is illustrated by a very handsome lithographic plate. Among the other papers we note one by "Dr. Mary C. Putnam" on "the significance of the pulse in the forming stage of generalized puerperal peritonitis." Ability and judgment have evidently been exercised in the preparation of the translations, reviews, and summaries.

The *Irish Hospital Gazette* is intended to take "the place left vacant by the *Dublin Hospital Gazette*, the change of title being adopted to mark it specially as the organ of the profession at large throughout Ireland." The first number contains much excellent reading-matter and several woodcuts; the second is promised for the 15th of January, but we have not yet received it. We presume the subsequent issues are to be fortnightly.

CORRESPONDENCE.

MEDICAL TRAINING.

To the Editor of the Philadelphia Medical Times:

THERE is a notion in the mind of the medical public that, in spite of their continuous efforts to improve it, the system of education followed in the medical schools is still defective,—that a large portion of the numbers of gentlemen who graduate every year are not yet fairly qualified to practise medicine in any of its departments advantageously to their patients. Even among those whose natural endowments and scholastic acquirements are sufficient, there are many who, immediately after graduation, are incompetent to apply at the bedside what they have learned in the schools. Professional lectures carefully heard and text-books attentively read enable intelligent students to acquire knowledge of the principles and theories upon which the practice of the healing art depends. The average pupils of the medical schools of the day listen to the professors and read the text-books, not with a view to immediate professional practice, but to pass examinations. It is the fashion to regard this as paramount to every other consideration. To prepare for examination, to learn in a limited period of time to answer all questions that examiners are likely to ask, seems to be the chief object of all effort. In connection with the schools there are private lecturers or companies of lecturers, some of whom announce that their special business is to qualify candidates to pass certain examinations. Pupils who patronize them have their memories crammed full of answers to the probable and possible questions of the prospective examiners, only to be forgotten within a few weeks after passing the examinations for which they have been thus prepared.

Some of those who avail themselves of this kind of assistance perceive that if they make themselves masters of the subjects taught, they must necessarily be able to pass examinations upon them. Those who study for the sole purpose of acquiring knowledge with comparatively little thought about passing examinations, enter hospitals, and, being trained in them, become reliable practitioners, and ultimately distinguished members of the profession. In hospitals they learn that the successful practice of medicine consists largely in personal service to individuals, requiring manipulations of various kinds at almost every step,—manipulations

which must be often repeated before they can be skilfully executed.

The student resident in a hospital very soon finds that he was not taught in his school what to observe or how to note his observations or to report them, and that his hands are without instruction in the use of instruments of any kind. In a word, he finds that he was educated at the medical school, but not trained in any degree to apply his knowledge efficiently in relieving sick or wounded persons. He may have often witnessed at the clinics operations of frequent necessity performed so skilfully and readily that they seemed to him so easy of execution that any tyro might repeat them equally well. And yet, when called upon the first time to introduce a catheter, for instance, he is surprised at his want of success in doing what he has often seen done without any apparent difficulty. Indeed, even the well-educated graduate is not unfrequently at a loss when he first assumes the responsibility of treating a serious case of disease, through want of that kind of knowledge which is acquired in hospital training or in practice.

With a view to obviate the kind of deficiency alluded to, the British government has established, at the military hospital at Netley, a school for training newly-appointed assistant-surgeons of the army and navy in the details and routine of professional and official duties.

The present organization is as follows: Deputy Inspector-General T. Longmore, Professor of Military Surgery.

Deputy Inspector-General W. C. Maclean, M.D., Professor of Military Medicine.

E. A. Parkes, M.D., Professor of Military Hygiene.

W. Aitken, M.D., Professor of Pathology.

Staff-Surgeon John Dennis Macdonald, M.D., Professor of Naval Hygiene; and four assistant professors selected from the medical staff of the army.

As with us, candidates for admission into the medical staff of the army or navy submit to a competitive examination. Those who are successful are sent to Netley on probation for four or six months.

The candidate commences his career in the wards of the hospital under the supervision of the staff surgeon of the division. He is held responsible for the ventilation and general neatness of the ward, as well as for the keeping of the different books and papers. He is required to keep a case-book, which is examined at the end of the course, and marked according to professional and literary merit, attention to detail of regulations, neatness, etc.

Each candidate is supplied with a microscope and other necessary instruments for his exclusive use, for which he is held responsible. He has a closet for their preservation. He is exercised in microscopic examination of tissues and morbid specimens in the microscope room, and he is made practically familiar with processes followed in the analysis of air, drinking-water, food, soils, etc., in the laboratory. He has also the use of libraries, museums, etc. designed to aid him in his studies.

A detailed account of this school is given in a report to the Surgeon-General of the U.S. Navy, by Medical Inspector Edward Shippen, U.S. Navy, Fleet-Surgeon on the European station.

Surgeon-General James C. Palmer, U.S. Navy, in his annual report to the Secretary of the Navy, suggests that a similar school be established for training assistant-surgeons of the Navy of the United States, and, to enable him to commence it, asks an appropriation of $15,000, a moderate sum for a purpose so valuable.

The commencement of such an institution is desirable. Though a very long time may elapse before it may be compared in any respect with the school at Netley, it cannot fail to exert a very beneficial influence on the naval medical service of the United States, and thus indirectly contribute to the general efficiency of the navy. R.

MEDICAL OFFICERS FOR THE AMERICAN STEAMSHIP COMPANY.

To the Editor of the Philadelphia Medical Times:

As the time draws near for the completion of the vessels of this Company, the question of the selection of properly qualified medical officers presents itself to the Board of Directors. As to the importance of this question to the travelling public there can be no doubt in the minds of medical men. Whether the Board feels the responsibility imposed upon them in this respect is not so certain. Whilst they are exercising the greatest care in the selection of the captains, engineers, and other important executive officers, it is believed that those persons who can command the greatest personal influence will be appointed to the positions of surgeons. If this is correct, then the professional qualifications of the candidates become a secondary consideration.

I take the liberty of suggesting to the Board the propriety of submitting the candidates for the positions as surgeons to an examination, to be conducted by a Board of Examiners selected from the medical teachers of our city. Let the gentlemen who are to compose this Board be named by the Deans of the University and Jefferson Medical College.

The examination should be largely practical in character, and no candidate should be examined who has not had at least three years of experience in the practice of medicine and surgery.

In this way the Company will secure the services of competent medical officers, and the public will feel that at least one danger is removed in their travels upon the sea. M.

WARM.

Editor Philadelphia Medical Times:

Dear Sir:—I have received another note from my friend Simkins. On this occasion it was called forth by a very serious illness from which I suffered, caused, I have no doubt, by overwork during

the intense heat of last summer in taking care of my friend Simkins's patients:

"My dear Timkins:

"I have just heard of your serious illness. In view of the fact that the uncertainties of life are great, and that the position you now hold in —— Hospital *may* become vacant, I have thought it advisable to commence an active canvass for it. I write to ask as a favor (possibly your last) that you will send me a letter of introduction to the President of the Board of Trustees. You can also send such testimonials as you may think proper. If I secure your place, it will be my nineteenth.

"Yours, very affectionately,

"Simkins."

Whereas, Mr. Editor, I was cool towards my friend Simkins, I now entertain for him a warm affection.

Yours, respectfully,

Timkins.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday, January 9, 1873.

The President, Dr. J. H. Hutchinson, in the chair.

Dr. WILLIAM F. NORRIS presented the following specimens:

I. *Glioma of the retina, with numerous metastases.*

B. N., æt. two and a half years, was brought by his parents to the clinic of the University of Pennsylvania in October, 1870, with the statement that in the winter previous they had noticed a yellowish reflex from the right pupil. The right eye was slightly prominent, lid a little swollen but not reddened, the eyeball very tense (T_2), commencing opacities in the cornea, a small quantity of pus in the anterior chamber, the lens yellowish and so far opaque that nothing could be seen behind it.

The case having been recognized as one of glioma, enucleation of the eyeball was performed October 20, 1870. The wound healed rapidly, and in ten days the child returned to his home.

The eyeball was laid in Müller's fluid to harden, and, when a section was made of it, a tumor was seen filling the posterior half of the ball, the anterior portion being filled with pus. To the outer upper side of the ball was a tumor firmly adhering to the sclera, shaped as if moulded to it, about one-half inch in length by one-fourth of an inch in thickness; and from this another nodule, about the size of a large pea, projected still farther into the orbital tissues. The continuity of the sclerotica between the external and internal tumor was unbroken, it having been infiltrated by the tumor but not ruptured by it. A microscopic section of it showed the characteristic structure of glioma, —viz., numerous small round cells, with large nuclei and scanty protoplasm, imbedded in a finely granular material, each cell being about the size of the granules of the granular layers of the retina.

The child soon returned to the clinic with a button of granulations springing from the bottom of the conjunctival sac. This rapidly increased in size, and, having filled the orbit, projected from the eyelids as a flattened round mass nearly three inches in diameter. Sloughs now formed on the exterior surface of the mass, which separated and fell off, materially reducing its size and allowing the distended eyelids once more to close over it. It, however, soon repullulated.

About this period several lumps appeared on the child's head, and one at the angle of the jaw (left side). Two of these attained considerable size; one near the vertex being a flattened hemisphere about three inches by two in diameter, and the one at the angle of the jaw ulcerating into the cavity of the mouth and causing a constant fetid discharge.

The child, at first very irritable, became heavy and soporose, and died December 14, 1870.

The autopsy showed that the tumors on the outside of the cranium had sprung apparently from the periosteum, leaving, when forcibly pulled off, the bones bare and rough. On removing the calvarium, numerous flattened ovoid lumps were found between the dura mater and the bone, that membrane firmly adhering to them. Some of these were as large as half a walnut. Opposite them were corresponding depressions in the cerebral convolutions. The brain-substance at these points presented no trace of the gliomatous degeneration.

It was also seen that the tumor filling the right orbit had extended backwards through the sphenoidal fissure into the cranium, and, crossing over through the sella turcica, extended to the vicinity of the sphenoidal fissure of the left side.

The case is interesting clinically from its extreme malignancy, and the inefficiency of the operation undertaken at a period when the tumor has filled the ball and caused inflammation and greatly increased intra-ocular pressure, to arrest even temporarily the progress of the disease. Scleral tumors, if small and formed at the posterior surface of the ball, are not to be diagnosticated before enucleation. Having found them, according to many authorities, it is proper to destroy by cauterization the entire contents of the orbit; but the statistics of this procedure were not sufficiently encouraging to cause a decision in favor of so serious an operation.

The prognosis of all such tumors is eminently unfavorable, and the recorded cases in which the return has not been rapid are all instances in which the extirpation was undertaken early. In the foregoing example the yellow reflex from the eyeground had been observed by the parents for nearly a year before they considered it worth while to submit the child to medical examination.

The statistics of the subject have been carefully compiled by Hirschberg.* Out of seventy-seven cases he gives five cures (*i.e.*, 6.5 per cent.). One of these was observed seven years after the operation, one six, and in the other three from one to one and a quarter years had passed without a return of the disease. They were all operated on in the earliest stage of the disease.

I have reported the above history partly in the hope of inducing the members of the Society to use their influence to cause all such cases, as soon as observed, to be carefully examined with the ophthalmoscope, and, if the presence of an intra-ocular tumor be proved by it, to urge instant extirpation. Moreover, they will contribute essentially to the statistics of the subject if they will report the return or metastases of any such cases as fall under their notice. For here, if ever, we have a chance to prove the value of the knife in the treatment of malignant disease. By the ophthalmoscope the disease may be diagnosticated in its very incipiency; and while the abnormal mass measures only a millimetre or two in diameter, and while it is yet shut off from the rest of the organism by the firm fibrous capsule of the

* Der Markschwamm der Netzhaut, Berlin, 1869.

sclerotica, we have surely better means of deciding the question whether malignant disease can be eradicated by the knife, and, if not, whether life can be prolonged by the operation, than is presented to us in any other organ of the body.

II. *Sarcoma of the choroid.*

E. O'C., aged 60, presented herself at the clinic of the University of Pennsylvania, April 1, 1872, with a tumor of the right eye the size of a small hen's-egg. It was everywhere covered by conjunctiva, hard and nodulated. Some years previously an operation for staphyloma had been performed on the eye, and a section of the growth proved that it had its origin in the cicatrix of the shrunken ball.

Microscopic examination showed a network of very small spindle-cells closely felted together, and consequently a comparatively favorable prognosis was made. It was enucleated April 4, 1872, and up to the present date there has been no recurrence.

III. *Sarcoma of the choroid.*

J. H., æt. 25, a healthy-looking farmer, presented himself at the Wills Hospital with a hard lobulated tumor growing from the right eye and pushing the cornea upwards and outwards. The lids can still be closed over it; but it has grown much lately, and causes severe hemicrania. The ball and adherent tumor were removed May 5, 1872. A section of the ball showed the inner wall of it occupied by a *pigmented* tumor, which presented a mottled appearance, owing to some portions of it being less pigmented than others, while some were entirely uncolored. The retina, adherent to the tumor on that side, although pushed inward by it, was on the other side entirely detached from the choroid and separated from it by a mass of pus. The sclera was nowhere ruptured, but outside of it, opposite the choroidal tumor, was an unpigmented hemispherical mass about one-half of an inch in its longest diameter. Microscopic examination showed that the choroid tumor was a small spindle-celled sarcoma, some of the cells pigmented, some with a single nucleus, others with two or three. An examination of the episcleral growth and its edges showed that the fat tissue of the orbit had been irritated by the presence of the neighboring tumor; that the trabeculæ of fibrous tissue pervading it and bounding its areolæ had been hypertrophied, and that then the place occupied usually by the fat-cells had been infiltrated by a mass of small spindle and round cells, resembling those of the original tumor, except in their not being pigmented. This anatomical arrangement, of course, gives a marked areolar appearance to the tumor.

A most unfavorable prognosis was made, which has been only too accurately verified by the course of the case. Within a few days (*i.e.*, about seven months after the removal of the tumor) he has reappeared at the hospital with a recurrence of the growth *in situ*.

Dr. R. M. BERTOLET asked whether in pigmented sarcomata of the choroid, the metastases were also pigmented.

Dr. NORRIS replied that even with regard to sarcomata of the choroid, although the greater number were pigmented, certain tumors occurred which, notwithstanding the marked pigmentation of the mother tissue, were entirely composed of white cells. These are, however, rare. Dr. N. said that metastases were most frequent in the lungs and liver, and that some were pigmented and some not. This circumstance, he said, was claimed by the advocates of each of the two theories as supporting their own view. Those who believe in the metastasis of cells themselves consider the pigmented secondary deposits vindications of their theory; while those who believe in the constitutional origin of morbid growths affirm that their occurrence is evidence in favor of the view that the same cause produces the same effects even in different localities.

Dr. WM. H. BENNETT, for Dr. FRANCIS L. HAYNES, presented the specimens from a case of *intussusception* in an infant five months old.

Thos. M. R., a fine healthy infant, aged five months, was attacked with uncontrollable vomiting on December 25, 1872, at about nine o'clock P.M. The mother administered magnesia and various other remedies; but they were immediately rejected by the stomach. Finally, on the morning of the 27th, I was called in. I found that the child was naturally of a constipated habit, and that no passage had occurred since the evening of the 24th, and then a very insufficient one only. A slight discharge of bloody water had occurred from the bowels on the 25th and 26th. The secretion of urine had been diminished. Upon inspecting and percussing the abdomen, nothing abnormal was discovered, but on making firm pressure in the left lumbar region a cylindrical tumor reaching from the costal margin to the iliac crest, and apparently about one inch and a half in diameter, was found. On introducing the finger into the rectum, a tumor of soft velvety consistence was felt, and having in its centre an oval orifice surrounded by a prominent border. With the assistance of Drs. Knight and Bennett, I passed an elastic catheter up the rectum, and injected as much water as possible, but without any result. Opiates were now administered in small doses and pushed by night to the verge of narcotism, when they were discontinued.

28th, A.M.—The child was suspended by his heels, the tube of a stomach-pump was pushed up the rectum till its extremity could be felt in the descending colon, and forced injections of water made through it by means of a Davidson's syringe. No beneficial result ensued, the water being immediately rejected. Gastrotomy was now proposed. The parents consented, but the operation was not considered justifiable by the consulting physicians. The vomiting, which had continued without cessation until this morning, now ceased. A plentiful supply of milk and brandy was directed to be given to the child. Throughout the day the child suffered from slight paroxysms of pain. Excepting these, his illness was remarkable from the fact that there was an entire absence of apparent suffering. In the evening the measures resorted to in the morning were repeated, but no change was produced.

29th.—In the morning about one ounce and a half of thin dirty-brownish fluid was discharged from the bowels.

Throughout the day the powers of life gradually failed, and at seven o'clock in the evening the child expired.

Autopsy, twenty-two hours after death.—Body frozen, somewhat reduced in flesh. The abdominal cavity only was opened, and the specimen extracted which is now presented for the inspection of the Society.

The specimen was referred to the Committee on Morbid Growths, who reported:

"In Dr. Bennett's specimen of intussusception of the intestine, the invaginated part, measuring twenty-two inches, comprises the ascending and transverse portions of the colon. The cæcum seems to have been the starting-point of the invagination, which, being inverted and descending along the colon, drew after it several inches of the ileum with its mesenteric attachment. Between the two serous surfaces of entering and returning layer were found evidences of inflammatory thickening with slight adhesions."

(To be continued.)

A CALL DECLINED.—Prof. Max von Pettenkofer declines to leave Munich for Vienna, to the great disappointment of all connected with the school in the latter city.

REVIEWS AND BOOK NOTICES.

WÖHLER'S OUTLINES OF ORGANIC CHEMISTRY. By RUDOLPH FITTIG, Ph.D., Nat. Sci. D. Translated from the Eighth German Edition by IRA REMSEN, M.D., Ph. D., Professor of Chemistry in Williams College, Mass. Pp. 547. Philadelphia, Henry C. Lea, 1873.

The value of this work to the student of chemistry is undoubted, as indeed might be imagined from the reputation of its distinguished author, and the number of editions through which it has passed.

Beginning with a short account of those properties common to most organic compounds, and of certain of the terms commonly used in classifying and describing them, the author passes in review most of the very numerous compounds hitherto investigated, describing particularly the most typical and important in each group, but saying all that is necessary with regard to the others. To add to the value of the work in the eyes of the student of medicine, fifty pages at the end are devoted to those substances which could not be readily considered elsewhere, such as the bile, the blood, etc.

The American editor has prefixed a chapter on the constitution of chemical compounds, for the benefit of those who may not be familiar with the theories in accordance with which the book has been arranged.

GLEANINGS FROM OUR EXCHANGES.

THE DEATH OF NAPOLEON III. THE POST-MORTEM EXAMINATION—THE OFFICIAL REPORT.—The post-mortem examination of the ex-Emperor took place on the 10th inst. It was performed by Dr. Sanderson, in the presence of Sir William Gull, Dr. Conneau, Dr. le Baron Corvisart, Sir Henry Thompson, Mr. Clover, and Mr. Foster. The examination occupied upwards of two hours, and the following is the official report:

"The most important result of the examination was that the kidneys were found to be involved in the inflammatory effects produced by the irritation of the vesical calculus—which must have been in the bladder for several years—to a degree which was not suspected, and if it had been suspected could not have been ascertained.

"The disease of the kidneys was of two kinds. There was, on the one hand, dilatation of both ureters and of the pelves of both kidneys. On the left side the dilatation was excessive, and had given rise to atrophy of the glandular substance of the organ; on the other there was subacute inflammation of the uriniferous tubes, which was of more recent origin. The parts in the neighborhood of the bladder were in a healthy state; the mucous membrane of the bladder and prostatic urethra exhibited the signs of subacute inflammation, but not the slightest indication of injury. In the interior of the bladder was found a part of a calculus, the form of which indicated that half had been removed. Besides this there were two or three extremely small fragments, none of them larger than a hempseed. This half-calculus weighed about three-quarters of an ounce, and measured one-quarter of an inch by fifteen-sixteenths of an inch.

"There was no disease of the heart, nor of any other organ, excepting of the kidneys. The brain and its membranes were in a perfectly natural state. The blood was generally liquid, and contained only a very few small clots. No trace of obstruction by coagula could be found either in the venous system, in the heart, or in the pulmonary artery. Death took place by the failure of the circulation, and was attributable to the general constitutional state of the patient.

"The disease of the kidneys, of which this state was the expression, was of such a nature and so advanced that it would in any case have shortly determined a fatal result.

"(Signed by all present.)

J. BURDON SANDERSON, M.D.,
DR. CONNEAU,
DR. LE BARON CORVISART,
HENRY THOMPSON,
J. T. CLOVER,
JOHN FOSTER.

"CAMDEN PLACE, CHISELHURST, Jan. 10, 1873, 6.30 P.M."

Sir William Gull left Camden Place as soon as the necropsy was over, and was not present at the careful consideration and discussion of the facts which ensued by the other medical men assembled. He records a separate opinion on one point only,—the origin of the calculus,—in the following terms:

"I desire to express the opinion that the phosphate of lime calculus which formed the nucleus of the mass was the result of prior cystitis (catarrhus vesicæ), and not the cause of it. This nucleus was of uncertain duration, and may even have been more recent than supposed in the appended report. However this may be, it was encrusted by two distinct and more recent formations of crystalline phosphate. The inner incrustation around the amorphous phosphate of lime was dense, and separated from the outer incrustation by a looser cellular but crystalline deposit of triple phosphate. It seems, to my judgment, more in accordance with clinical experience to regard the cystitis as the prior lesion, and that, by extension, as is common in such cases, it affected subsequently the ureters and pelves of the kidneys. No doubt, in the later stages of the malady, the calculus became, by its formation and increase, an augmenting cause of lesions.

"The other facts and statements I entirely indorse.

"WILLIAM W. GULL, M.D.

"BROOK STREET, January 10, 1873."

THE SO-CALLED CORPORA AMYLACEA IN THE MEMBRANOUS SEMICIRCULAR CANALS OF MAN (A. Lucæ: *Virchow's Archiv*, Band 54, Heft 4, 1872).—In this article Prof. Lucæ reiterates his conviction that certain bodies found in the membranous semicircular canals of man are of a pathological nature and are peculiar to the adult human being.

These bodies are never found in the new-born child, but, according to Lucæ, are produced, in some instances, by local disturbances; in others they are the result of general systemic disease. The name *corpora amylacea* is still applied to these bodies by Lucæ, since their starchy nature is said to be proved by the characteristic reaction manifested by them in the presence of iodine. They are found in gray degeneration of the spinal cord, typhus and typhoid fever, tumor of the brain, tuberculosis, morbus Brightii, chronic ulcer of the stomach, and in cases where a disease of the ear—as, for example, otitis media—has been present up to the time of death.

These bodies are not found in the lower mammals, birds, fishes, or amphibia, according to all observers.

Prof. Rüdinger opposes Prof. Lucæ on all points save the last.

He says that the reason these bodies are found in the above-mentioned diseases is due to the fact that these diseases supply the anatomist with his material, and, as they are normal structures, they must necessarily be found in all adult subjects, and their occurrence in such cases is rather *post hoc* than *propter hoc*. Rüdinger considers them "papilliform prominences on the inner surface of the tunica propria of the membranous semicircular canal." And he adds, "I must consider them normal structures of the adult human being, since I have never failed to find them, in some stage of

development at least, in man. So far as their reaction with iodine is concerned, they share that characteristic with the tunica propria and other tissues in which no starch can be shown to exist; and, furthermore, the epithelium with which these bodies are covered, but the existence of which Lucæ has denied, can be readily shown by the proper application of the necessary reagents."

Concerning their function, Rüdinger says,—

"If we dare suppose that the membranous semicircular canals secern the endolymph, these papillæ would appear to be structures eminently calculated to supply a large secreting surface." C. H. B.

Doubtful Sex (Tardieu: quoted from *Centralblatt für Med. Wiss.*, No. 45, 1872).—In a memoir on the medico-legal aspect of cases of doubtful sex, the author relates the following: A man married a person whose genitals were not normally constructed. Although he soon discovered that the individual did not belong to the female sex, he did not attempt to institute a suit for divorce on the plea of invalidity of marriage. The person in question possessed no mammæ, and its pelvis was more like a man's than a woman's. There was no vagina, no uterus, no ovary, nor had there ever been (twenty-seven years) any menstrual flow of blood, nor any periodical pains: only the external genitals, in consequence of excessive hypospadias, could give the impression of appertaining to a female. Since, according to the French law, impotence or malformation of an individual of undoubted sex can be no impediment to marriage nor cause of divorce, and since, on the other hand, a marriage between persons of the same sex cannot be consummated, and where it may have occurred by accident is of itself null and void, the great question in this case was whether the person under consideration should be regarded as a woman with abnormally formed genitals, or whether *she* should be regarded as a man. The first trial decided the marriage to be illegal, on the latter alternative, after a careful medico-legal examination. The so-called wife appealed from this decision, and procured a medical certificate stating that she must be considered a female from the structure of the external genital organs. Finally Tardieu was called upon for his opinion, which was as follows. Since this person was not the possessor of the essential organs of a female, uterus and ovaries, said person cannot belong to the female sex; but, since similar cases show that persons with just such abnormal genitals are provided with testicles, though diminutive and hidden, therefore they must be regarded as belonging to the male sex. And the verdict was rendered accordingly.

MISCELLANY.

The late Mr. James Startin, F.R.C.S., was one of the leading dermatologists in London, and had a very large practice. His name was well known to the profession in this country some twenty years ago, from his advocacy of a so-called "immovable dressing" for fractures, his idea being to apply bandages and subsequently to stiffen them with stearine. The "paraffine bandage" now used by many English surgeons is very analogous to this.

It is stated that, on motion of the Earl of Derby, the residue of the fund raised for the sufferers by the cotton famine is to be applied to the foundation of a hospital at Manchester.

Death-Rate of Boston.—By the annual report of the State Board of Health, it appears that the mortality of Boston in 1872 has been unprecedented. The deaths in 1872 exceeded those of 1871 by 37 per cent., exclusive of those from smallpox, the increase of which has been 25 per cent.

Yellow Fever at Rio de Janeiro.—Telegraphic advices from Lisbon, dated January 28, announce that the mail steamship from Rio de Janeiro, on the 11th instant, brought intelligence that the yellow fever was raging in Rio at the date of her departure.

The *Lancet* of January 4 says, "Robin and Littré have submitted to the Academy of Sciences the new edition of their Dictionary of Medicine. Robin points out that the work is based on philosophical principles. Pathology he considers as a branch of biology which levies contributions on mathematics, chemistry, physics, and even social science and history. The Archbishop of Orleans has denounced the Dictionary as tending to lower man to the level of the brutes."

The History of Medicine (*Lancet*, Jan. 4).—Dr. Ollivier, Deputy Professor at the Faculty of Medicine of Paris, will this session lecture in the room of the lamented Dr. Daremberg. The introductory discourse of this talented member of the Faculty was published in *L'Union Médicale*, December 10 and 12, 1872. The lecturer, after paying a well-deserved tribute to his predecessor, showed how important it is for medical men to have some notions as to what has been done before them. This knowledge should be especially possessed by those who write on our art. Dr. Ollivier, as an illustration of this, quotes two examples,—one concerning the transformation of starch into glycose by the action of the saliva, supposed to be a modern discovery: whilst Verheyen mentions it very clearly in his "Supplementum Anatomicum," published in 1710, p. 113. Here is the text: "Ut verò certiùs experire vim fermentivam salivæ, accepi duas partes farinæ tritici, earum alteram subegi cum meâ salivâ alteram cum aquâ vulgari leniter calefactâ; cumque utramque massam tenuissem in blando calore duarum circiter horarum spatio, inveni illam, quæ cum humore salivali erat subacta, itâ fermentatam, ac si flores cerevisiæ fuissent additi; alteram verò quoad sensum non mutatam." The second example refers to the use of the thermometer in acute diseases,—a practice lately revived, and thought by some to be quite modern. De Haen, however, had already noticed, as is now frequently observed, that in the shivering stage of fever the temperature is, nevertheless, very high. He says, in his "Ratio Medendi," published in 1761, "Tempore frigoris humani intolerabilis, cum pulsu contractiore, minore, thermometrum signat octo graduas ultra calorem naturalem" (vol. i., second part, chap. x. p. 205). The eight degrees seem much; but this is owing to De Haen's belief that the column of mercury still rises when it has left the axilla. The lecturer then referred to what are called new diseases and extinct diseases, took an extended view of the epidemics of ancient

times, and concluded with remarks on cholera and syphilis viewed as epidemic complaints.

THE SALE OF DIPLOMAS.—The *American Chemist* for January, 1873, says, "In the *Literarischer Anzeiger* we notice an advertisement of this disgraceful business, which has been legally suppressed by the Legislature of Pennsylvania. The publishers of the above scientific periodical must be in a condition of great poverty, that they are so lost to a sense of honor as to receive such an advertisement. The commissioners of charities should give them their attention."

BARON STOCKMAR, for very many years an influential personage in European diplomacy, whose memoirs have recently been published in English, began life as a physician, and practised as a civil and military surgeon for six or seven years. His appointment as physician-in-ordinary to Prince Leopold gave him an introduction into court circles, where he played an important part, especially in England.

CHARITY HOSPITAL OF PHILADELPHIA.—Drs. Deal and Kollock have recently been elected to fill the department of Diseases of Women and Children at this institution. Dr. Barton has been transferred from the medical to the surgical staff.

UNSUCCESSFUL CANDIDATES.—After a recent examination of female teachers in Ohio, some of the unsuccessful candidates complained that injustice had been done them, whereupon the examiners were so cruel as to publish extracts from the papers written by the rejected applicants. The following are a few specimens of the answers: "The food is first masticated and then passes through the phalanx;" "Respiration is the sweating of the body;" "The chest is formed of two bones, the sternum and the spinal cord."

A FOREIGN vegetarian, who came to this country with the intention of introducing unbolted flour, has given it up as impracticable, because, as he asserts, the Americans give such little time to their meals that they bolt everything they eat.

APPOINTMENT.—Governor Hartranft has appointed Dr. W. A. Hoffman Port Physician for Philadelphia. Our very efficient Health Officer, Mr. John E. Addicks, will be retained in his position.

IT is stated that Miss Sophia Jex Blake, the head and front of the female aspirants for medical honors at the Edinburgh University, came up for examination recently, but failed to pass, or, in British student phrase, was "plucked."

PRESBYTERIAN HOSPITAL DISPENSARY.—The Trustees of the Presbyterian Hospital, desirous to extend their benefits to the poor of West Philadelphia, have established a dispensary on Thirty-ninth Street, below Powelton Avenue. They have appointed Dr. De F. Willard as Surgeon, and Dr. G. S. Gerhard as Physician, both of whom will hold clinics daily at half-past one o'clock P.M.

NOVEL CURRENCY.—The London *Chemist and Druggist* says, "An American friend assures us that in South Bend, Indiana, they use small packages of quinine for change. As everybody takes quinine, they look upon it the same as legal tender, and it passes off without difficulty."

M. LITTRÉ, the greatest of medical scholars, has completed his dictionary of the French language,—one of the most remarkable feats of the century. The work is especially rich in its etymology and definition of medico-scientific terms.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending February 1, 1873, were 333; 166 adults, and 167 minors. 12 were of bodies brought from the country; making the mortality of the city 321. Among the causes of death were:

Consumption of the Lungs	48
Other Diseases of the Respiratory Organs	56
Diseases of the Circulatory Apparatus	14
Diseases of the Brain and Nervous System	47
Diseases of the Digestive Apparatus	15
Zymotic Diseases (11 from Scarlet Fever)	27
Typhoid Fever	9
Casualties	8
Exposure	2
Cancer	6
Intemperance	4
Suicide	1
Debility (including "Inanition" and "Marasmus")	31
Still-born	26
Old Age	15

(The interments reported for the week ending February 3, 1872, were 437.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER. Max.	Min.	BAROMETER. (2 P.M.)
Jan. 26	32.5°	21.5°	30.33 in.
" 27	36.0	28.0	29.86 in. (Snow.)
" 28	41.0	20.0	30.20 in.
" 29	16.5	3.0	30.48 in.
" 30	17 0	2.0	30.35 in.
" 31	31.5	8.0	30.34 in.
Feb. 1	34.0	17.0	30.23 in.

The mean temperature of the month of January was 29.68°, or 1.15° lower than that of January, 1872 (30.83°); and yet the latter was noted as an unusually cold month.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JANUARY 21, 1873, TO JANUARY 27, 1873, INCLUSIVE.

MCMILLIN, THOMAS, ASSISTANT-SURGEON.—To accompany batteries of Fourth Artillery, under orders for field-service in Oregon. S. O. 5, Department of California, January 10, 1873.

WEISEL, D., ASSISTANT-SURGEON.—Assigned to duty at Fort Johnston, N.C. S. O. 14, Department of the South, January 22, 1873.

SATURDAY, FEBRUARY 15, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 292.)

LECTURE III.

ACUTE LARYNGITIS.

ACUTE laryngitis, catarrhal laryngitis, or erythematous laryngitis, is an inflammation of the mucous membrane, sudden and severe in its onset, and generally of short duration. It often occurs as an idiopathic affection, brought on by sudden or unusual exposure to cold, especially in the feeble and convalescent individual; but it is much more frequently met with in the course of chronic tuberculous or syphilitic laryngitis, an acute laryngitis being superimposed upon the pre-existing chronic affection. It also occurs in typhus fever, in pyæmic fever, and in erysipelas. It may be induced by overstraining the voice, or by inhalation of irritant vapors, etc. The presence of a foreign body in the pharynx may give rise to it, or the incautious use of instruments within the cavity of the throat, whether for the purpose of diagnosis or for the extraction of foreign bodies. Sometimes it has followed the use of the epiglottic forceps; sometimes it has been induced by severe cauterization of the larynx, or even of the pharynx. The most frequent cause of acute laryngitis is of traumatic origin, such as the partial deglutition of caustic solutions or boiling water, the inhalation of steam, flame, or acrid substances; the inflammation of the larynx supervening immediately.

Acute laryngitis, if at all severe, is generally ushered in by a chill, followed by fever; sore throat being also one of the earliest symptoms. The pain in the larynx is severe, very often described as scratching or burning, and is usually increased for the time by coughing, protracted or loud speaking, or the access of cold air to the parts: with this there is tenderness upon pressure, and there is a feeling of constriction as though there were a foreign body within the larynx. There is reason to believe that this sense of constriction is occasionally due to a spasmodic condition of the adductor muscles of the glottis on the one hand, or to a paralyzed condition of its dilator muscles on the other. Dyspnœa and dysphagia are speedily manifested. The voice generally becomes hoarse, and its emission is often difficult and painful; the words being frequently interrupted by wheezing and prolonged efforts of inspiration, symptoms which are indicative of constriction, whether from spasm or mechanical impediment situated above the glottis. Sometimes there is paresis of the vocal cords, usually with complete patency of the entire glottis, due to the extension of the inflammation to the constrictor muscles; and then there is more or less dysphonia, or even aphonia, in consequence. The cough is hoarse, hollow, or brassy, like that of croup, and is generally accompanied by a slight expectoration of mucus. As the disease advances, the fever grows more intense, the severity of the local symptoms increases, the appearance of the patient is anxious, suffocative paroxysms of dyspnœa and of spasm of the glottis ensue, the face becomes cyanotic, and, unless speedy relief is afforded, death occurs from gradual suffocation and coma, or from veritable asphyxia. Although the actual amount of inflammatory action present may not be very great, yet the conformation of the parts involved is such that even a moderate amount of swelling of the mucous membrane of the larynx will often seriously interfere with the respiratory function; and it is this mechanical impediment to free respiration that constitutes the grave and serious lesion of this disease.

As a usual thing, the inflammation involves the entire larynx, but very often it is confined to its upper portion; sometimes it is restricted to some special locality, as the epiglottis, one or both ventricular bands, one or both vocal cords, one or both arytenoids, etc.; and occasionally there are seen points of erosion along the crest of the epiglottis, or even upon its laryngeal face, or upon the Santorinian eminences, or upon the vocal cords; but these manifestations are uncommon.

The secretion of mucus is generally slight in quantity, and is usually of a serous quality, viscid but thin. In some cases the secretion is quite viscid and adherent, and is expectorated with difficulty in small pellets, while in other cases there is no evidence of abnormal secretion. Sometimes the irritation extends along the mucous membrane of the trachea and bronchi, and we have the evidences of inflammation of these structures superadded to the special phenomena of laryngitis.

Acute laryngitis may be conveniently separated into two forms; one in which the inflammation is limited to the mucous membrane, and the other in which it extends into the sub-mucous connective tissue.

In the first form of laryngitis, the entire laryngeal mucous membrane is very red and very much infiltrated. The epiglottis is swollen out to three or four times its normal bulk, while the mucous membrane of the ary-epiglottic folds, Santorinian and arytenoid cartilages, and ventricular bands, and sometimes even that of the vocal cords, is similarly swollen; the swelling being either symmetrical, or limited to one side only. This swelling is sometimes so extensive as to leave only a very narrow passage for the air; it greatly impairs the motion of the parts, so that the glottis can no longer be fully dilated, and a speedy termination of the patient's life by suffocation is threatened.

The disease, unless fatal, continues from seven to

ten days; there are, however, cases recorded in which its entire course was run in less than twenty-four hours. In mild cases of this disease the acute phenomena of fever will be absent; there is little or no impediment to respiration and deglutition, but the pain is severe and the voice hoarse. Upon examination the laryngeal mucous membrane will be found to be congested and of a fiery red color.

A subacute laryngitis accompanies many cases of bronchitis, and not infrequently attends pulmonary phthisis and other affections of the lungs. Another variety of this form is one which involves the trachea to a greater or less extent,—properly a laryngo-tracheitis. This may be simply catarrhal; or it may be pseudo-membranous, under which circumstances it is known as croup.

In the second form of acute laryngitis we have greater swelling than in the preceding form, from serous infiltration into the sub-mucous connective tissue, and we have the symptoms and appearances of œdema of the larynx. The severity of the local phenomena does not bear any relation to the amount of the febrile derangement, which is much less than in laryngitis which is confined to the mucous membrane. On the other hand, the local symptoms are much more severe, and more imperatively require immediate relief.

In the treatment of acute laryngitis it is essential to arrive at a proper diagnosis at an early date, and to act promptly and efficiently, remembering that it is an acute affection, rendered more dangerous on account of the locality invaded than from the violence of its action, and that, for this reason, local treatment must take precedence of general. Here the laryngoscope will be found of the greatest service, both as a means of accurate diagnosis, and for the successful application of local measures.

General and local depletory measures are not applicable here as in inflammations elsewhere, because we dare not always wait for their action. In the milder cases, the external application of leeches, the use of salines, and the inhalation of atomized astringent solutions, such as alum or sulphate of zinc, will prove beneficial, with perfect rest of the organ and maintenance of an equable temperature. The use of warm drinks or other methods of inducing moderate diaphoresis may sometimes be advantageously seconded by the frequent exhibition of small doses of aconite. If the pain in the parts is severe, the watery extract of opium, or a small quantity of morphia, should be added to the inhalation; and if there is considerable disturbance of the nervous system, anodynes in efficient doses should be administered, by enema or hypodermically. Gibb and others recommend the local use of strong solutions of nitrate of silver or sulphate of zinc; but the lecturer had never seen the necessity for such treatment. In severer cases, especially where there is œdema, early scarification of the parts, or sometimes mere puncture, will be of immense service.

Where scarification cannot be resorted to, tracheotomy should be promptly performed, that the lungs may receive a due supply of air to enable the system to pass through the natural stages of the inflammatory process. This operation should be performed the very moment that the impediment to respiration becomes serious. If the opening of the trachea be postponed, the blood will become so thoroughly poisoned by carbonization that the patient will succumb in a few hours after having been relieved of the local symptoms, or he may linger on for a few days, relieved from the immediate dyspnœa, and perish ultimately from the effects of the congestion of the lungs or brain which has followed the prolonged difficulty of respiration.

Acute laryngitis usually subsides without leaving any traces of its presence. Sometimes, however, it declines into a chronic laryngitis, which in many instances is apt to prove ulcerative; occasionally it is the direct precursor of the formation of morbid growths within the larynx. At times, too, it is followed by paralysis of the vocal cords. In acute laryngitis of traumatic origin there is an element of complication, from the destruction of tissue which is produced by the accident. Ulceration of the mucous membrane itself does not often take place in idiopathic laryngitis. The cartilages are rarely affected in acute laryngitis. Laryngoscopic inspection occasionally shows that the seat of the inflammation is limited to special portions of the larynx, without any active participation of the adjacent structures. The terms epiglottitis, chorditis vocalis, arytenoiditis, meso-arytenoiditis, are often employed to designate the particular seat of the inflammation. These lesions are to be treated in the same manner as acute laryngitis of a mild type affecting the entire organ; but if great swelling or œdema is present, scarification is required.

A subacute catarrhal laryngitis sometimes protracts convalescence after the severe symptoms of the acute form have passed away: this is to be treated by repeated applications of moderately strong (20 grs. to ℥j) solutions of nitrate of silver or sulphate of copper, assisted, if need for it appear, by the internal or external use of iodine or of mercury.

ACUTE LARYNGITIS IN CHILDREN.

Acute laryngitis in children, even where the inflammatory processes are confined to the mucous membrane, is apt to be more severe than in the adult. This is in part due to the greater sensitiveness and delicacy of the parts themselves, but also doubtless, in a great measure, on account of the greater sensitiveness and greater excitability of the nervous system in children. Thus the phenomena of spasm, whether they be direct or reflex, are more severe in themselves, and, on account of the small size of the larynx, more dangerous in their results. The condition to be described, though in its local manifestations it has much in common with laryngismus stridulus, is to be discriminated from that affection, which is more closely a neurosis, and unattended with the phenomena of inflammation which characterize a veritable laryngitis.

The affection is sometimes ushered in suddenly; though there is reason to believe that some general or special cause has given origin to it, which is either concealed or has not attracted attention. In other

cases it is preceded by the phenomena of coryza, pharyngitis, or bronchitis, the symptoms of which may have been so trifling as to have caused no anxiety on the part of the nurse or parent.

Like laryngismus stridulus, and like croup, the phenomena of paroxysmal cough, with impeded, noisy, or stridulous respiration, which first excite alarm, occur at night, and frequently rouse the patient from sleep. During the paroxysms the face becomes flushed, the pulse accelerated, and the motions of the child exhibit restlessness or anxiety. After a period, variable in its duration, these phenomena subside, and the patient falls asleep. A recurrence of the attack may take place during the night, or not until the next day or the next night. In the interval there are symptoms of moderate febrile reaction; the respiration is free, but more or less sonorous; the voice is more or less hoarse, the cough more or less harsh and dry. Sometimes there is slight disturbance of the digestive organs, but usually the general health does not appear to suffer. In a few days the phenomena gradually subside, respiration becomes quieter, the cough less harsh and more moist, and the voice gradually regains its ordinary quality of tone. Sometimes the phenomena of spasm are slight or entirely wanting, and the febrile condition may be so slight as to give no evidence of its existence; at other times the spasmodic phenomena are excessive, and may threaten asphyxia, and the febrile reaction is very great.

Moderate general antiphlogistic treatment is usually sufficient to subdue the acute laryngitis of children, care being taken by due administration of nutriment, and, if necessary, by tonics or even alcoholic preparations, to keep up the strength of the patient as far as possible. The relaxing influence of the warm bath, and the inhalation of the steam from hot water, may often be resorted to with advantage.

There is no disposition here to the exudation of false membrane, and therefore no permanent impediment to respiration. Should, however, œdematous effusion take place, the existence of which can almost always be detected by a digital exploration, or should the element of spasm be so pronounced as to threaten suffocation, the operation of tracheotomy becomes necessary, as in the adult; though in the case of serous œdema the effusion could sometimes be discharged by rupturing the distended membrane with the finger-nail. Laryngoscopic examination in these cases is practicable only as the exception, and not as the rule.

(To be continued.)

CLINICAL LECTURE ON CHRONIC MYELITIS.

BY DR. H. C. WOOD, JR.

Delivered at the Philadelphia Hospital.

Reported by Dr. W. H. PARISH, Resident Physician.

GENTLEMEN,—Pathologically speaking, there are but two, or at most three, ordinary diseases of the substance proper of the spinal cord. Let us consider for a moment the anatomy of this nervous centre. We have the nerve-cells and nerve-tubules, and the trabeculæ or the fibrous tissue,—an arrangement somewhat analogous to that of hepatic cells and connective tissue. Of course in the spinal cord there are also blood-vessels and probably lymphatics. Each chronic disease is situated in the nerve-cells and tubules or in the connective tissue; the latter tissue being only a modification of that seen throughout the system. Under the microscope it presents a granular condition after having been hardened with alcohol or chromic acid, but during life is most probably largely an amorphous material, with nuclei and some cells,—the granulations seen in the ordinary preparations being produced by the reagents used for hardening. Two of the chronic diseases of the cord are inflammatory; one of these is an inflammation of the connective tissue, known as sclerosis of the spinal cord, and analogous to cirrhosis of the liver. In this the nuclei of the connective-tissue cells increase in number, the cells multiply by division, and thus, the neuroglia becoming increased in quantity, a pressure is produced upon the nerve-cells and nerve-tubules. The result of this pressure is the gradual atrophy of these nerve-structures. Moreover, there is an exudation into or around the walls of the blood-vessels, and, like exudative or cicatricial tissue, everywhere this exudation gradually contracts, and thus by degrees produces an obliteration of the blood-vessels.

The other form of inflammatory change results in spots or foci of softening, disseminated along the cord-substance. These spots vary in color from a reddish to a pale yellow, the colors being due to extravasation of blood, and their varying hues dependent upon the date of the extravasation. A microscopical examination of these spots shows us fatty, broken-down nerve-tubules and some nerve-cells which have undergone the same change. We also see a multiplication and a granular condition of the connective-tissue cells. There are also seen a large quantity of granular bodies, and sometimes pus-cells. The walls of the blood-vessels are also seen to be fatty. This process then is one of inflammatory softening; the softening varying with the stage of the process. The disease is gradual but steady in its course, and may last for years.

The third form of chronic spinal disease is not one of inflammation, but is a form of simple fatty degeneration, or what is generally known as "white softening."

If the anterior and lateral columns of the cord are the principal seat of either of these lesions, the motor functions are chiefly perturbed, and paralysis more or less complete, with or without other symptoms, results. An involvement of the posterior column would interfere with the functions of sensation. A diminution of sensation, wandering pains, and loss of muscular co-ordination are symptoms which go to make up locomotor ataxia,—a spinal disease, whose clinical history is characteristic, yet the pathology of which is simply that of sclerosis involving the posterior column. It is doubtful if the cause of chorea and paralysis agitans is to be looked for in any lesion of the spinal cord. Of course we have tumors, traumatic injuries, etc., more or less

destructive to the cord; but we cannot now speak of these.

To-day we have before us two patients apparently representing the two inflammatory chronic diseases of the cord. The one of whom we shall first speak is

Charles D., æt. 36 years, a native of Germany, by occupation a machinist; of temperate habits; not addicted to excessive venery, and with no syphilitic taint. The following history up to the date of his admission we gather from his own statements:

His father, brothers, and sisters were quite healthy. His mother, however, was of a nervous temperament, and was subject to attacks which seem to have been epilepsy or hysteria. His father's occupation was that of a manufacturer of leaden pipes, copper and brass utensils, etc. The patient never worked in the shop, but, as salesman, handled the different articles. At the age of twenty-one he left his father's employ and came to America. Here for a while he did work in a paint-factory, but, being seized with some nervous disorder, which, however, lasted but a few days, he entered a boiler-factory, where he worked on copper boilers for a few years. Afterwards he was employed to polish axes, in which process fine copper dust was used.

When about nineteen years of age, he was first attacked with abdominal cramps. These continued about two weeks, when they in a great measure disappeared. Then supervened muscular contractions, especially of the lower extremities. So forcible were these contractions that it required the strength of two men to hold the patient in bed. When unrestrained, his body would be jerked up one or two feet from the mattress. Throughout this attack the bowels were usually constipated. On only one occasion does there seem to have been loss of consciousness, and then for a few minutes only. He was restored to health in about three months, afterwards doing service in the Prussian army.

During the latter part of 1869, while in the St. Mary's Hospital, and convalescent from typhoid fever, there came on an attack apparently very similar to the present one, which disappeared in about eight months. After leaving that hospital he again entered a boiler-factory. During January of the present year (1872) he was in the Municipal Hospital with an attack of variola. On February 10, 1872, after being a few days out of the Municipal Hospital, he was admitted to this hospital suffering with acute laryngitis and albuminuria. The laryngitis was severe and quite obstinate. Constipation also existed. On April 1 the throat trouble had disappeared, and albumen was no longer present in the urine.

About the 1st of March the patient began to complain of cramps in the umbilical region; these lasted some eight or ten minutes, and occurred usually once or twice daily. Opium relieved these cramps, but did not prevent their return. During the night of the 22d of April he was suddenly seized with violent contractions of the abdominal muscles, especially of the recti. In three days these contractions had extended to the muscles of the right forearm and to the muscles of the lower extremities; more marked, however, in the right than in the left. Touching the chest or abdomen would bring on these contractions, or if present would increase their severity. The most sensitive point was directly over the xiphoid cartilage. Touching it would be quickly followed by jerkings both of the abdominal muscles and of those of the lower limb. These muscular spasms were so severe as to nearly throw the patient out of bed. They would occur during the waking as well as the sleeping hours, and were attended with pain in the lumbar spinal region. At times there were sensations as of ants crawling over him. In the muscles there were almost constant fibrillar contractions, which were much increased when the limbs were handled. The calf muscles were less affected than were those of the thigh. The fibrillar twitchings were more marked in the right than in the left lower limb. Both these extremities were quite rigid, but could be flexed or extended without pain by a strong exertion of the patient's will or by another's assistance. In the right forearm there were slight fibrillar twitchings, but in the left there were none. Prior to this attack he had been confined to the bed, but whether from nerve-exhaustion or because of the weakness incident to the precedent variola, laryngitis, and albuminuria, did not seem clear. The muscles of the lower limbs were somewhat emaciated. An interrupted electrical current applied to the right lower extremity produced such excessively violent contractions as to nearly throw him from the bed. When applied to the left extremity, musculo-contractility did not seem above par, but fibrillar twitchings would occur in the right lower limb, and to a slight extent in the left. No muscular jerkings, however, would be occasioned. There was decided loss of general sensation throughout all the affected portions. He had most of the time slight vertical headache, with some weakness of vision. Any endeavor to stand or walk would produce such jerkings as to render the attempt unavailing. He could sit up a little in a chair, but spent most of the time in bed. There were no passages from the bowels without the aid of active purgatives. Urination was normal.

During the earlier weeks of this attack, the patient took large doses of iodide of potassium without any apparent benefit. During a portion of May he had hypodermic injections of Fowler's solution without any effect. On May 12 he received a hypodermic of $\frac{1}{60}$ gr. of sulphate of atropia, which produced in two minutes sensations of dryness and constriction of the pharynx, and also relieved the muscular spasms for several hours. For several weeks afterwards, the patient received $\frac{1}{75}$ gr. of this drug hypodermically once daily, with the effect of diminishing the frequency and intensity of the muscular jerkings. For a few days this remedy was suspended and a continuous electrical current was passed along the spine. The contractions increased in intensity, and the atropia was resumed and again produced an amelioration. During the month of June a continuous current was passed daily along the spine, and the atropia was administered only at intervals of several days. The electricity did not produce muscular contractions as at first, and the only phenomena attending its use were the usual ones of a burning under the electrodes and a coppery taste in the mouth.

On July 1 the following was the man's general condition: the bowels remained generally constipated, but there was no difficulty in micturition. The muscular jerkings and fibrillar movements in the right lower extremity, though still present, were less marked. Both present to some extent in the left one. In both legs there was wasting of the muscles, but this was most decided in the left one. There was then almost constantly a pain in the left knee, and a numbness, with a feeling of "pins and needles" throughout that extremity. An induced current along the right limb brought on violent jerking. A mild current to the left limb produced slight action of its muscles, with choreic movements of those of the right leg. A stronger current to the left thigh produced repeated and excessively rapid general spasms of the muscles of the right limb, raising it entirely, and elevating the foot 240 times per minute. These jerkings continued for several minutes after the removal of the electrodes, and were accompanied with pain along the lumbar region. For a few days during July there seemed to be a decided improvement, and the patient could almost stand alone. On the 27th of that month, however, the muscular spasms suddenly returned with

great violence, and seemed to involve the muscles from the head down. Accompanying these spasms there were fierce darting pains in the hips and thighs, with intense aching pain in the lumbar region and severe pain in the posterior portion of the head. In a few days the severity of these symptoms diminished, and the jerkings became confined to the muscles of the lower half of the person and the right upper extremity. The use of electricity was suspended. The iodide of potassium and the bromide of potassium, five grains of each, were directed to be taken three times daily.

December 1, 1872.—Since the last date the last two remedies have been taken with occasional suspension. There has been no decided change in the symptoms. The muscular jerkings still persist, unless controlled by some remedy. The one that acts most satisfactorily is a hypodermic injection of sulphate of morphia gr. $\frac{1}{4}$ and sulphate of atropia gr. $\frac{1}{60}$ in combination, this being used once or twice daily. The emaciation of the lower extremities has increased, yet the patient can still sit in a chair. Constipation continues troublesome. The bladder and kidneys act well, the urine being normal.

What then, gentlemen, is the nature of the disease of this man's spinal cord? The symptoms resemble those of sclerosis. Remember that the change in the connective tissue is a slow one; that the atrophy of the nerve-structures and the obliteration of the blood-vessels come on slowly, and that hence the symptoms must gradually show themselves and gradually become more marked. If the anterior and lateral columns are affected, there will be in disturbed motility, evidences of excitement, congestion, and irritation of the cord, before the pressure is sufficient to produce paralysis; reflex action will become excessive; and muscular twitchings, with fibrillar movements, local spasms, and rigidity, supervene. Striking the muscles in this case quickly produces repeated clonic spasms, lasting, perhaps, for a few minutes; the application of an electrical current brings about these twitchings in a most marked manner. There are, besides, spontaneous contractions of the abdominal muscles, making the walls of that cavity firm and tense. Sometimes the muscular jerkings are so severe as to throw the patient out of bed. When the muscles are temporarily unexcited, extension and flexion are not accompanied with pain; a fact to be borne in mind in differentiating this affection from chronic spinal meningitis. In the latter disease the spasms partake more of a tonic nature, the muscles are more rigid, with occasional spasms, and movements are accompanied with pain in the muscles as well as in the back. In sclerosis pain in the back may accompany the spasms, but there is no severe pain in the muscles. In the man before us the anterior and lateral columns were first involved, and as the pressure increases paralysis will become more and more marked until complete. Slowly it seems to be extending to the posterior columns, and sensation is gradually becoming affected. The disease will probably extend up the cord until the medulla becomes involved, when death must result from disturbance of the roots of the phrenic and pneumogastric nerves.

The man states that he has had a similar attack before, and recovered. I do not know whether this is correct or not; but it is possible, although I never saw such a case, that in the early stages the diseased action in the cord may cease for a time, and great amelioration take place; an amelioration which is, however, only of a temporary nature.

The treatment of sclerosis of the cord, like that of cirrhosis of the liver, is most unsatisfactory. Various remedies have been faithfully used without any apparent positive benefit. The electrical current in this case did no good, and the iodide of potassium was used with the same result. The regular progress of this disease has not been materially affected by any treatment as yet proposed for it.

(To be continued.)

ORIGINAL COMMUNICATIONS.

CYST OF THE IRIS—REMOVED BY OPERATION.

(With a Lithographic Plate.)

BY GEORGE STRAWBRIDGE, M.D.,

Lecturer on Diseases of the Eye and Ear to the University of Pennsylvania, Ophthalmic Surgeon to the Presbyterian Hospital in Philadelphia, etc.

THE history of the case, as given by the patient, Mr. G., æt. 70, is, that one year ago an unusual watery condition of the left eye was noticed, which gradually increased, and especially so when encountering a strong light, which caused such a degree of lachrymation that vision was thereby seriously interfered with. The eye was also painful. A few months later, the sight of the eye had decreased to such an extent that reading or writing was impossible, while the lachrymation was so great that, on attempting to write with the aid of his right eye, the paper was as if sprinkled with water. The pain had increased, and was of a smarting, burning character. The right eye had also become sympathetically affected, so that the light caused him great annoyance; while the amount of use he derived from it was very limited.

At the time of my examination, one year from the commencement of his trouble, a perfectly transparent cyst was visible in the anterior chamber of the left eye (see Fig. 1), in its outer lower quarter, having a height of five millimetres, and at its base a breadth of eight millimetres, and oval in shape. Oblique illumination showed it to be clear fluid contained within a transparent membranous bag.

The iris, which could be distinctly seen through the body, was pushed backward, causing it to be deeply concave at that point, and of a much darker color, by reason of its black uveal layer being brought into view. The cyst filled up the space between the iris and cornea completely; and the cornea directly over it was slightly cloudy. The pupil remained round, with slight abnormal dilatation, while the crystalline lens had become cataractous. Congestion of the conjunctival and ciliary blood-vessels existed to a moderate degree. Tension of the eyeball was slightly increased, and any amount of pressure caused pain.

The patient found the pain and annoyance to the right eye to be so rapidly increasing that he readily submitted to the operation for its removal.

A puncture was made in the periphery of the cornea, just below its horizontal meridian, with a Graefe cataract-knife, which was then passed downwards in the anterior chamber (transfixing the cyst in its passage), and the counterpuncture made at a point three lines distant from the puncture, and the cut completed. The collapsed cyst was then seized with a small curved iris-forceps, and gentle traction used to effect its removal. It soon became evident that the cyst and iris were firmly bound together, and the greatest care was required to prevent separation of the entire iris. Its complete removal was finally accomplished, together with that of the underlying iris-tissue.

No complication followed, and the eye healed rapidly. Fig. 2 represents the eye eleven months after the operation. The pupil is drawn outwards and downwards towards the old corneal opacity, causing the change in its shape; the loss of iris by the operation is also seen. The condition of the cornea and lens shows no change. Tension of eyeball good; the patient is entirely free from any pain or discomfort in either eye, and is able to use his right eye in reading and other fine work at pleasure, and there is no sign of return of the cyst.

Examination of the cyst showed it to belong to that class having a delicate membranous wall with epithelial lining and clear fluid contents. It evidently originated in the iris.

Mr. Hulke,* in his admirable report on cysts in the iris, has collected the histories of twenty-one cases, reported by Tyrrell,† Wharton Jones,‡ Dixon,§ Guepin,‖ Bostells,¶ Graefe,** Wordsworth,†† Mackenzie,‡‡ Turner,§§ Combessir,‖‖ White Cooper,¶¶ Stoeber,*** Richard,††† Haynes Walton,‡‡‡ and Hulke.§§§ To these add one case published by Fischer,‖‖‖ one by Graefe,¶¶¶ one by Arlt,**** six by Mooren,†††† one by Wecker,‡‡‡‡ one by Knapp,§§§§ and the one now published, making a total of thirty-three cases published up to the present date.

In these cases the cysts were found in size from that of a small pea to one four lines in height. They also exhibited great variety in color, some having a glistening white appearance like a pearl or the tendon of a muscle, others of a more bluish cast, the remainder being brown, reddish brown, or opaque brown.

The cyst-wall in some cases was found to consist of a transparent membrane with epithelial lining, while in others it was thick and tough, like cartilage; and the researches of Bowman and others have proved that in a great number of cases the cyst-wall is formed by the rarefied tissue of the iris, and that the uveal pigment forms the epithelial covering of the inner wall of the cyst.

The cyst-contents may consist of a clear, limpid fluid, or they may be thick, opaque, and gelatinous, or they may be composed of epithelium, fatty matter, cholesterine, and hair, as in the case reported by Graefe.*

The origin of the cyst may be either in the iris, or in the ciliary bodies, or in the portion of iris-tissue involved in the sclero-corneal cicatrix.

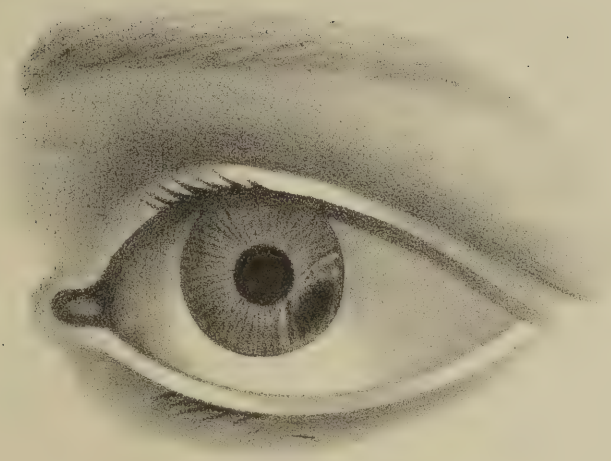
In more than two-thirds of these cases the eye had sustained some previous injury, such as a penetrating corneal wound; and this suggested to Mr. Hulke the idea that in some instances the cyst may originate out of a portion of Descemet's membrane, which may have been torn away from the back of the cornea by the penetrating body and carried before it into the iris.

Wecker considers these cystic growths to be the result of sacculation of the iris, and the enclosed fluid to be the aqueous humor. The iris becomes attached to the posterior wall of the cornea (often after penetrating wounds of the cornea) in such a way that an opening is still left in the adherent parts, through which the aqueous humor enters, and this finally develops into a cyst. This would very well account for that class of cysts occurring in eyes which have previously suffered from irido-choroiditis with synechial formations, or where the sacculation has been produced by a penetrating wound; but in another variety of cases where the cyst has developed without any previous cause, Mr. Bowman's theory† is much more plausible,—namely, that they are due to a morbid collection of fluid between the iris and its uveal layer, and that the first formation of the fluid is attended with a swelling of the uvea backwards towards the suspensory ligament and the lens, but, as the contact of these resisting parts must very speedily arrest any further advance in that direction, the accumulating fluid next begins to push forward the proper tissue of the iris. The highly extensile fibres of the iris slowly yield, until in the course of months they bulge before this fluid, and finally come in contact with the cornea, and sometimes may cause the pupil to be thrown towards the opposite side or to be rolled in front of it. This view is also confirmed by microscopic examination, which shows that the cyst-wall is often to a great extent made up of distinct iris-tissue with the uveal pigment layer forming the inner epithelial covering. This theory would explain the occurrence of the cyst in the case now published.

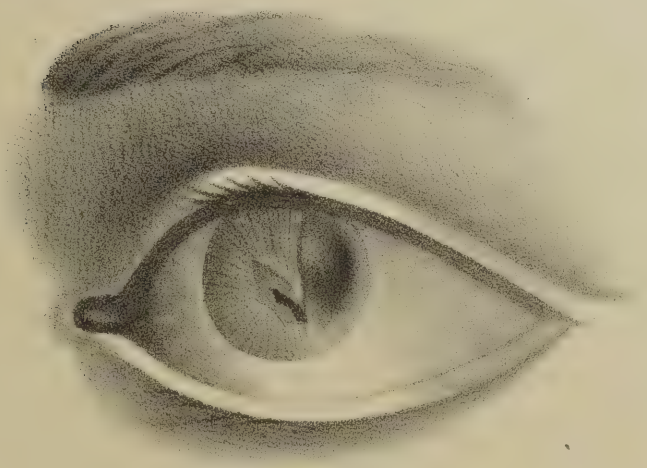
Graefe insists that, in some instances at least, the cyst must be regarded as a new formation, and supports his view by a case of dermoid cyst of the iris which contained epidermis and hair with amorphous fat and cholesterine.

* Ophth. Hospital Reports, vol. vi. p. 12.
† Tyrrell on the Eye, vol. i. p. 368.
‡ *Lancet*, xvi., 1852, p. 120.
§ Dixon, Ann. d'Oc., tome xxxvii. p. 141, 1857.
‖ Guepin, Ann. d'Oc., tome xliv., 1860.
¶ Bostells, Ann. d'Oc., tome lii., 1864, p. 175.
** *Archiv für Ophthalmologie*, Bd. xii. Abth. 2, S. 228.
†† Unpublished.
‡‡ Mackenzie, edit. iv. p. 704.
§§ *Monthly Journal of Medical Science*, vol. i. p. 270, 1841.
‖‖ *Gazette Hebdomadaire*, 1855.
¶¶ *Journal of Medicine*, Sept. 1852, p. 789.
*** *Gazette Hebdomadaire*, tome ii. p. 55.
††† *Ibid.*, tome i. 1082.
‡‡‡ *Medical Times*, August 5, 1854, p. 139.
§§§ Ophth. Hosp. Reports, vol. vi., 1869, p. 12.
‖‖‖ Lehrbuch der gesammten Entzündung und organische Krankheiten des Auges, 1846, p. 11.
¶¶¶ *Archiv der Ophth.*, Bd. iii. Abth. ii. p. 412.
**** Arlt, Lehrbuch, Abth. iv. p. 109.
†††† *Klin. Monats.*, b. p. 362, et Ann. d'Ocul., tome liv.
‡‡‡‡ Archives of Ophthalmology and Otology, vol. i. part i p. 86.
§§§§ *Ibid.*, vol. i. part ii. p. 411.

* *Archiv f. Ophth*, Bd. iii. Abth. ii. p. 412.
† Lectures on the Parts concerned in Operations on the Eye, p. 75, London, 1849.



LARGE CYST OF IRIS.



EYE. - AFTER ITS REMOVAL.

DOUBLE LIFE SIZE.

As the histories of all cysts of the iris show that, if allowed to remain, they invariably become the cause of inflammatory action in the eyeball, in the form of a choroiditis or irido-choroiditis, with often sympathetic inflammation of the other eye, the indication is always to remove them as soon as possible before impairment of sight has occurred.

Puncture of the cyst has been repeatedly tried, but is so generally unsuccessful that excision is much to be preferred; although the latter operation is not unattended with risk.

A CASE OF POISONING BY STRYCHNIA—RECOVERY.

BY GERALD D. O'FARRELL, M.D.,
of Philadelphia.

ON the 22d of January I was called to see I. W., aged 50 years, a German baker. He had been drinking freely for a month past. A few days previous to my visit he had obtained from a drug-store in the vicinity two grains of strychnia, under pretence of wishing to poison a dog. He was rational, and admitted that he had taken the poison for the purpose, as he expressed it, "of spiting his wife."

I found him on a settee, his extremities cold and rigid, with so much subsultus tendinum that I was unable to feel any pulse; his face and body livid, the expression of his countenance hideous, and his respiration very difficult. He complained of intense pain in the pit of his stomach.

Ascertaining that the poison had been swallowed six hours, and that he had just before my arrival taken an emetic of sulphate of zinc sent him by the druggist from whom he had obtained the alkaloid, I could see no advantage to be derived from the use of the stomach-pump. There was slight emesis of a glairy white fluid slightly tinged with blood. I ordered him f℥i doses of chloroform every half-hour until relieved, and every hour after. I also gave him tannic acid in five-grain doses, frequently repeated, with large doses of animal charcoal at intervals. After the chloroform had been administered as above for eighteen hours, he slept; and when he awoke he expressed himself free from pain, but complained of being unable to stand, his limbs having no power to support him. The following day he was well and at his work.

NOTES OF HOSPITAL PRACTICE.

EPISCOPAL HOSPITAL.

CASE OF TETANUS, FOLLOWING BURNS, FATAL IN LESS THAN TWELVE HOURS.

Reported by LOUIS STARR, M.D., Resident Surgeon.

CHARLOTTE S., æt. 17 years, admitted to Dr. Packard's ward in the hospital, December 27, 1872, suffering with extensive burns, and a compound comminuted fracture of the right femur; caused by the explosion of the water-back of a kitchen range.

The burns were situated on back of neck and head, left shoulder and forearm, right forearm, left thigh and leg; the destruction of tissue being superficial, except in two places, one on the shoulder, the other on the thigh, where for an area of about two square inches it extended below the true skin.

The right femur was fractured at the junction of its middle and upper third; there were two wounds on the outside of the right thigh: the upper one, three inches in length, communicated with the bone at the seat of fracture; the lower wound, situated just above the knee-joint, was about an inch and a half long, and quite superficial. On admission, one day after receiving the injury, she complained of great pain, but her general condition was moderately good; there was little or no bleeding; her pulse was frequent, but strong; the temperature of the surface slightly raised, and a tendency to nausea.

The wounds in the right thigh were dressed with carbolic acid cerate, and weight extension applied to the leg; the burns with lard covered with cotton; and the patient was ordered a fever mixture, milk punch, and a milk and beef-tea diet. In the evening gr. ¼ of morphiæ sulph. was given by hypodermic injection.

December 28.—Condition slightly improved; less fever; pain in leg not so severe; stomach able to retain food.

December 29, 30, 31.—Condition still improving; pulse less frequent; sleeps moderately well; able to take some solid food; large but healthy discharge from wounds; treatment continued—gr. ¼ of morph. sulph. given each night by injection.

January 1, 1873.—[Dr. John Ashhurst, Jr., took charge of the ward.] Fever has subsided; complained of some pain in back of neck, which was entirely relieved on washing and redressing the burn situated there; fever mixture stopped; ordered iron and quinine; other treatment continued.

January 2.—Took through the day ♏ x ol. terebinth. in addition to the iron and quinine; at 6.30 P.M. felt rather more restless and uncomfortable than usual; f℥ij of liq. morph. sulph. were given by the mouth; passed an uncomfortable night.

January 3.—Pulse much more frequent, with a general febrile condition; tendency to diarrhœa; some slight twitching of muscles of arms and legs; turpentine mixture suspended, and f℥i of spt. eth. comp. ordered in its place. At 12 M., half an hour after taking the first dose of the anodyne, vomiting and purging came on; at 4 P.M. had taken three doses of spt. eth. comp. with no appreciable effect; spasmodic action of muscles still continued; face pale; skin hot and bathed in perspiration; at 4.30 she was seized with a well-marked convulsion, which lasted but a few minutes, when her jaws became locked, the muscles of the abdomen rigid, and the body arched backwards; in this condition she remained—with but a short interval, when the jaws were slightly relaxed—until the time of her death, at 6 P.M.

Several unsuccessful attempts were made to administer calabar bean.

THE *Druggists' Circular* gives the following as the formula for "juniper tar soap:"

℞ Oil of juniper, 1 fl. ounce,
Soft soap, 1 fl. ounce,
Alcohol, 1 fl. ounce. Mix.

The same journal answers a correspondent who asks if there is any varnish which will protect surgical instruments from rust, as follows: "There is; but we do not recommend it for such a purpose, though it is very useful to protect steel under other circumstances. Here it is: Melt common resin with a little Gallipoli oil and spirits of turpentine in proportions adapted to the particular case. The varnish should adhere firmly, not chip, and yet be easily removed. We have recently seen a mixture of carbolic acid and olive oil, recommended in an English paper; but paraffine dissolved in benzine is said to be still better. We do not think that the simple mercurial ointment can be much improved upon for delicate instruments."

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, FEBRUARY 15, 1873.

EDITORIAL.

THE PHARMACOPŒIA OF THE UNITED STATES.

THE new edition of the "United States Pharmacopœia," which within the last few days has issued from the press of J. B. Lippincott & Co., of this city, is a model of excellence in every respect, and does honor to all who have had any share in the work of its revision and publication. As a specimen of bookmaking, with its clear, sharp type, its general neatness, and its superior paper, it cannot be excelled by even the far-famed Riverside Press. But it is not merely as a fine specimen of typography that we are to look at this volume: it is one of the most valuable works published in this country. What Blackstone is to the lawyer, nay, even more, is the Pharmacopœia to the pharmaceutist, and through him to the physician and the community. The "Committee on Revision" has done its work faithfully and well.

Some may be inclined to find fault, some may say that this or that preparation might have been made more agreeable to the palate, or to the eye, in some other manner; perhaps so, but excellence gained in one way is often lost in another, and the efficiency of a drug is of much greater importance than its appearance or taste. The superiority of this edition to the preceding one is great, not only in the additions to the materia medica, but also in the introduction of several classes of preparations which are not to be found in any former edition, and in the weeding out of useless matter.

Upon opening the volume we find the "Proceedings of the National Convention of 1870," telling us of the appointment of the "Committee of Revision and Publication," which committee consists of some of the most honored men in the professions of medicine and pharmacy in this country.

Next comes the Preface, which gives us some insight into the immense amount of work the committee has performed.

Dr. G. B. Wood, in an introductory lecture delivered at the University of Pennsylvania, November 2, 1842, used the following words: "At this very moment, in the rage for novelty, we are threatened with an innovation in chemistry, which promises to subvert some of the facts of the science previously thought to be among those best settled, and to work an almost complete revolution in its nomenclature. The salts are no longer to be compounds of acids and metallic oxides, but of certain complex radicals with the metals themselves."

The "revolution in nomenclature" foreshadowed here has at last come upon us, and the new Pharmacopœia, "without adopting the new nomenclature of chemistry to its full extent," has adopted it to the extent necessary "to give uniformity; all the salts of the alkaline metals are designated as of the particular metal, not of its oxide." Though the new nomenclature may give us trouble at first, it certainly is a step in advance, and a step not prematurely taken. We fear it will take many a long day to unlearn and relearn the names of our old chemical friends.

The "Preliminary Notices" have not been altered from those of the last edition, and consist of notes on weights and measures, temperature, percolation, powders, etc.

The primary list of materia medica has been altered by the addition of twenty-four articles, among which we find carbolic acid, oxalate of cerium, chloral, iodoform, and other important drugs. Three articles have been added to the secondary list, and four dismissed from it, none of these being of much importance. We also find that the number of preparations has been increased by the addition of eighty-two new ones, while seven have been stricken off. Among the former, we notice many that bid fair to be of much use, and we are glad to welcome the new classes Chartæ, Glycerita, Suppositoria, and Succi.

The use of glycerin, and the lessening of the quantity of alcohol, in the fluid extracts, will meet the approval of those who are opposed to the use of the latter liquid.

A number of alterations of position and of

names have been made which need not be particularly mentioned here.

The last few pages of the volume are filled with several valuable tables of weights, measures, etc., ending with a copious index.

The history of the Pharmacopœia may not be familiar to all our readers, and to some a short sketch of its history and the sources of its authority may be interesting and instructive.

The first work on materia medica published in this country was the American Dispensatory of Dr. John Redman Coxe, which appeared in 1806. The Pharmacopœia of the Massachusetts Medical Society was published in 1808; this Pharmacopœia was also adopted by the Medical Society of New Hampshire. The next work on this subject was the American New Dispensatory of Dr. James Thacher, bearing the date 1810. In 1816 the Pharmacopœia of the New York Hospital was published, and the next year gave birth to Dr. Chapman's work on Materia Medica and Therapeutics. But the want of a national standard was still badly felt, for the difference in the preparations made according to different authorities created great confusion in regard to strength, dose, etc.

The first proposition to form a Pharmacopœia for Pennsylvania was made to the College of Physicians of Philadelphia on the 1st of May, 1787, by Dr. John Morgan; the proposition was not fully considered then, but was taken up again in 1789, and at several different times, until in 1797 the subject seems to have been dropped.

In 1817, Dr. Lyman Spalding, of New York, presented a plan for a National Pharmacopœia to the New York County Medical Society, and this society issued a circular calling for "the assembling of four district conventions severally composed of medical delegates from the Northern, Middle, Southern, and Western States." These conventions were each to compile a Pharmacopœia and to send delegates to a general convention. This general National Medical Convention assembled in the Capitol at Washington on the 1st of January, 1820, and was composed of delegates from the following societies: the Medical Societies of Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Ohio, Indiana, South Carolina, Georgia, and the District of Columbia, and from Brown University, Yale College, the College of Physicians of Western New York, of the City of New York, and of Philadelphia, and from the Medical Convention of Maryland.

This convention formed the first Pharmacopœia of the United States, and provided for the assembling of a similar convention every ten years for the purpose of its revision.

The first edition of this work did not meet with general favor, and before the ten years had passed it was almost forgotten. But the importance of the subject and its practicability had interested in its favor some of the great lights of the medical profession. Dr. Samuel L. Mitchell presided at the first convention; Dr. Thomas T. Hewson was its secretary. Dr. Franklin Bache published a review of the first edition in the *American Recorder* in 1821.

In 1829 the College of Physicians of Philadelphia appointed a committee consisting of Dr. Hewson, Dr. Bache, and Dr. G. B. Wood; this committee prepared a Pharmacopœia, which was adopted by the college and afterwards by the national convention of 1830, and was published by the revising and publishing committee of that convention, after having been submitted to the Philadelphia College of Pharmacy and meeting with their approbation, in April, 1831. This edition was very generally accepted, and became the standard authority.

The convention of 1840 invited delegates from pharmaceutical colleges; and since that date these institutions have taken an active part in the preparation of the Pharmacopœia.

The first and second editions were published both in Latin and English. In the edition of 1840, and in the subsequent editions, the Latin language has not been used, except for the names of medicines and preparations.

Thus every ten years a convention composed of delegates from our most important medical and pharmaceutical societies meets at Washington to revise and republish the Pharmacopœia.

Among the names of those who have been influential and active in these conventions are many of whom Philadelphia may be proud,—Bache, Hewson, Wood, Carson, Bridges, Parrish, Procter, and many others. Our own College of Physicians has always been in the front rank of the workers in this good cause. F. A. H.

A NEW SANITARY "JOB."

WE see noticed in the daily papers a plan, which is said to have taken shape in a bill before the State Legislature, for a "Board of Sanitary Officers" for this city. The said Board, to be called the Street-cleaning Department, is to consist of six men named in the bill, who are to be placed in office until 1877, and are to have the entire charge of the removal of all dirt, garbage, dead animals, ashes, etc. They are to be clothed with

power to order the paving of streets when they think proper, and the bills for the work so done must be countersigned by the City Controller, and must be paid by the City Treasurer.

What checks are to be placed upon the six to insure their proper fulfilment of the duty of keeping the streets clean and well paved, and to prevent lavish expenditure of the public money by them for the benefit of contractors or hungry politicians. we do not know, not having seen the proposed bill.

But we do not think any man of average intellect can fail to see how a plan of this kind is likely to work. Certainly the six would have more than ordinary political virtue if they let slip the opportunities it would afford them of lining their own pockets at the expense of the public treasury. And he must be a simple-minded man indeed, who would look for clean or well-paved streets under such a system. On behalf of the sanitary interests of the city, we protest against this palpable "job." It would be far better to increase the powers of the Board of Health, and leave the matter in their hands.

LEADING ARTICLES.

THE HEALTH OF 1872.

IN looking over the reports of mortality of the past year, we find that the most remarkable phenomenon—more remarkable even than the epidemic of smallpox—was the increase of mortality caused by the excessive heat. The mortality in 1872 was greater from cholera infantum in the single month of July than ever before in the whole year.

The hottest summer of which any record has been kept was, until last year, that of 1870; and in 1870 the deaths from cholera infantum were 1002 in number. In 1872 the deaths from that cause amounted to 1666; 1080 of them in July, 324 in August, 143 in June, and 59 in September. 1221 of the deaths from cholera infantum were of children under one year,—more than one-fifth of the total mortality at that period of life, viz., 5862. 413 died from cholera infantum between the ages of one and two, and 32 between two and five.

But it was not only thus that the effect of the heat was shown. There were 136 deaths from sunstroke, to 11 the year before, and 52 in 1870,—the hottest summer previously known. Even in adults and independently of sunstroke was the effect of the heat shown. This is very unusual; for after the age of two we seldom or never before have seen the mortality increased by heat. But in the summer of 1872 the deaths in July were more numerous even among adults than in any other month except January alone, when smallpox was at its height.

In comparing thus the mortality caused by these two scourges of humanity, we find that in one respect they were analogous: both attacked children preferably. From smallpox about one-ninth of the mortality was in children under one year; from cholera infantum a much larger proportion, three-fourths of all the deaths being of children at that age. As regards duration, however, the two diseases were very different. Smallpox extended over a year, cholera infantum over the summer only; but during midsummer, and among children under one year, the mortality in July, when the hot weather was most intense, was nearly ten times as great from cholera infantum as ever in any one month from smallpox even at its height: so that in this respect it may be truly said that the mortality from cholera infantum was more remarkable than that from smallpox, although the total mortality in 1872 was only two-thirds as great.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, JANUARY 9, 1873.

(Continued from p. 301.)

DR. J. EWING MEARS presented specimens of *uterus and both ovaries in a state of cystic degeneration, together with both kidneys, showing dilatation of their pelves.*

The specimens were removed from a patient of Dr. J. Ralston Wells, of Hestonville, whom Dr. Mears saw with Dr. Washington L. Atlee in April last. On that occasion Dr. Atlee tapped the patient, removing a bucketful of fluid from the abdominal cavity. This fluid was of a mixed character, the first portion evacuated being serous, then becoming sero-purulent, and finally changing into pus. At the time of the tapping the patient was suffering from an attack of acute peritonitis, the pulse was 130, small and wiry, the exhaustion was extreme, and death appeared imminent. Her condition was such that it was feared she would not survive the operation of tapping. With a view to relieve the dyspnœa which was produced by the accumulation of fluid in the abdominal cavity, and thus to render the patient more comfortable, the operation was performed.

Contrary to expectation, the patient recovered, not, however, without an extreme illness extending over seven weeks.

After removal of the fluid, a tumor of somewhat large dimensions was detected occupying the left side of the abdomen in its lower portion. On account of the patient's condition, no examination was made for the purpose of deciding its character. After the attack of peritonitis the patient enjoyed fair health, being able to perform light household duties and take exercise in the open air. A few days before her death she became quite prostrated, and died presenting some of the symptoms of uræmic poisoning. Her physician, Dr. Wells, stated that the secretion of urine gradually diminished, ceasing almost entirely twenty-four hours before death.

December 31, 1872.—Autopsy by Dr. Mears, assisted by Dr. Wells. Examination limited to abdominal cavity. The abdomen was uniformly distended, and about the same size as in the eighth month of pregnancy. Over the position of the tumor on the left side fluctuation was present, but indistinct and limited by the median line. On the right side fluctuation was more distinct, and was also limited by the median line.

On cutting through the linea alba, the knife divided a portion of intestine, which was found on examination to be the ascending portion of the colon, sealed to the under surface of the abdominal wall by extremely thick and dense layers of adventitious tissue. It passed obliquely across the cavity in a direction from the inguinal region to the umbilicus; its outline could not be detected on the under surface of the wall, so uniformly thick were the layers of the adventitious tissue. Corresponding to a line drawn from a point just below the umbilicus outwards, this adventitious membrane was reflected from the anterior to the posterior wall of the abdominal cavity, forming a distinct septum or false diaphragm; thus enclosing a space which was bounded on the left by the large cyst occupying the left side of the abdomen, above by this septum, and in the other directions by the abdominal and pelvic walls. This cavity contained four pints of turbid fluid with flakes of lymph floating in it. Above this septum the intestines were found pushed up in contact with the stomach. There were no signs of inflammation beyond this septum. The serous coat of the intestines was smooth and glistening, and the intestines were freely movable upon each other. The stomach, spleen, and liver were normal, and free from inflammatory adhesions. The kidneys were about one-third the normal size; their pelves appeared largely dilated, owing to absorption of the greater portion of the medullary substance of the organ. The upper portion of the ureters was dilated; the ureters were firmly pressed upon by the large cyst in their course to the bladder. This organ was empty.

Both ovaries had undergone cystic degeneration; the left was very large, multilocular in character, and firmly bound down in both abdominal and pelvic cavities by strong, dense adhesions. The right was about the size of a large orange, and was, like the left, attached to the uterus by broad and dense pedicles.

In presenting the specimens, Dr. Mears desired to call the attention of the members of the Society to points which he regarded of interest. First, in reference to the fact that paracentesis was performed during an attack of acute peritonitis, which was found by post-mortem examination to have been distinctly circumscribed and limited by the false diaphragm. In considering this subject, the question suggests itself as to the effect exerted, for good or bad, by the tapping. Did it in any way modify the morbid condition? At first sight he was inclined to regard the condition of the kidneys as due to the obstruction produced in the ureters by the large cystic tumor of the left ovary, which was so firmly fastened by adhesions. He had not submitted them to microscopic examination, and could not state whether there were any evidences of structural disease.

In the case of the right ovary he was induced to believe that it presented an instance of cystic disease, developed subsequently to the attack of peritonitis, and caused by the inflammation which interfered with and prevented the proper performance of the function of the ovary,—producing an inflammatory thickening of the capsule, which, as Rindfleisch states, was able to resist the forces which cause a rupture in the normal condition of the capsule and in this way set the follicle free. The accumulation of fluid in the follicle may lead to the formation of a cyst.

Dr. J. V. INGHAM asked Dr. Mears on what grounds he based his statement that the disease in the right ovary did not exist prior to May last. He thought the circumstance that menstruation ceased at that time was scarcely a sufficient reason in the face of the fact that menstruation sometimes continues after both ovaries have been removed. Dr. Ingham thought, too, that the amount of disorganization in the right ovary was too great to permit him to believe that it had existed only since May.

Dr. MEARS replied that his statement was based only on the circumstance of the cessation of menstruation.

Dr. INGHAM said he had asked the question on account of the light which he thought might possibly be shed upon the absence of menstruation in cases of parametritis in which the ovaries seem not to have been involved. This might have been the case here. He did not know how to explain the matter, except that the pressure produced a change in the circulation, which did not respond to the menstrual nisus. That the ovaries alone are responsible for menstruation he thought doubtful.

Dr. JAMES TYSON desired to know what symptoms of uræmia were present; since, if the view of Harley, Roberts, and others, as to a difference in the phenomena of blood-poisoning as produced by deficient elimination of urea, and as due to reabsorption of the urea or the products of its further decomposition, is correct, this is a case in which, in consequence of obstruction to the passage of urine into the bladder, we would expect the symptoms of "ammonæmia," so called, rather than of uræmia, *i.e.*, those of a gradual exhaustion without coma or convulsions.

Dr. MEARS replied that so far as he was familiar with them, the symptoms were more like those of "ammonæmia:" at least there was neither coma nor convulsions while the patient gradually sank into death.

The PRESIDENT asked whether there was not evidence of a diseased state of the kidney apart from the dilatation of the pelvis.

Dr. BERTOLET thought there was diminished extent of the cortical substance, a condition which indeed made the pelvis appear larger than it actually was. He also thought, judging from the leathery hardness of the entire organ and the contracted condition of the cortical portion, that, upon microscopic examination, the amount of connective tissue between the tubules would be found abnormally developed.

The specimen was referred to the Committee on Morbid Growths, who reported that—

"The kidney accompanying Dr. Mears's ovarian cysts was found upon microscopical examination to present, in addition to the slight dilatation of its pelvis, marks of chronic interstitial nephritis; the glomeruli and the tunica propria being very much thickened. The reduction of the cortical substance to less than half its ordinary width, together with the marked retraction of the papillæ and columnæ Bertini, must be regarded as the principal factors in the production of the pelvic enlargement, although the ureter may have been compressed, and no doubt was rendered almost completely impervious."

Dr. R. M. BERTOLET presented the following specimens: *cysto-sarcoma proliferum of the mammary gland* with metastasis in the liver and spleen; *cystic degeneration of the ovaries; eversion of the Morgagnian ventricles.*

This interesting group of specimens was obtained from the body of a greyhound. The tumor, about the size of a man's fist, was situated in the lower mammary gland of the left iliac region. The skin is tensely stretched over the uneven nodulated tumor, which has slowly increased in size since its first appearance a little over a year ago. Externally to the nipple there is a

small fistulous opening leading into the centre of the growth; from it more or less pus and blood was constantly discharged.

Upon section, the tumor is seen to be made up of an aggregation of numerous cysts of very variable size, from that of a small pea up to that of an English walnut. Some of the cysts are filled with a dark-red or black substance of a gelatinous consistence; but the majority of the cavities are more or less completely filled with firm, flesh-like masses of granulations springing from the walls of the cysts. The latter constitute the proliferating sarcomatous growth, while the cyst-walls themselves are probably formed by dilatation of the lacteal ducts and sinuses, since in some of the smaller cysts traces of an epithelial lining can still be detected.

Microscopically the tissue of the tumor is of a very variable character, which the great diversity in both color and consistence would naturally lead one to expect. Certain portions, having a dense, whitish, almost fibrous structure, might in themselves be taken for fibromata; other portions of the growth have a soft, medullary appearance. But it is the latter portion, composed entirely of a cellular and vascular structure, that designates the sarcomatous character. Its cells are round, and contain a nucleus and nucleolus. The protoplasm of the cells is cloudy and finely granular; intercellular substance scant; the blood-vessels coursing in it wide and numerous. If a thin preparation is carefully pencilled out under water, there is seen a very fine network of connective-tissue fibres, in the meshes of which were seated the above-described small round cells. In addition to these round cells, in a few preparations short spindle-cells were noticeable, but in very limited number. The lymph-glands of the groin, and elsewhere, were not enlarged.

The metastatic deposits thickly strewn over the surface of the liver were of small size; the largest was not as large as a pea. In the spleen only a single deposit occurred, but that was as large as a hazel-nut. The histological characters are like those seen in the primary growths, namely, small round cells with interstitial substance, the latter, however, homogeneous in appearance.

The lungs and heart were healthy; but we have an explanation of the marked dyspnœa and muffled bark that existed towards the close of life in the everted condition of the mucous membrane lining the Morgagnian ventricles, which are seen projecting over the free edges of the vocal cords into the glottic fissure. Both of these sacs are filled with a thin translucent fluid; light being freely transmitted through their attenuated mucous covering. The vocal cords and remaining parts of the larynx are in a healthy condition.

The animal has never been pregnant, yet we find cystic degeneration of both ovaries. Each cyst is about the size of a hickory-nut, and filled with a straw-colored fluid.

In the left cornu of the bifid uterus, about one inch from its free end, is seen another distention, as large as a hen's egg. This is made up of an aggregation of smaller cysts; in other words, it is multilocular, and no doubt corresponds to, and was produced by causes similar to those that give rise to, Fallopian cysts in the human subject. The tube leading from the small ovarian cyst to the larger multilocular cyst was rotated a number of times upon its axis; but that part of the tube or cornu which extended to the main body of the uterus was not observed to be twisted when dissected out.

MEDICAL SCHOOL AT GENEVA.—The Conseil-Général of Geneva, Switzerland, has voted to establish a faculty of medicine in that city.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

A SPECIAL meeting of this Society was held January 14, 1873, the President, DR. A. VAN DERVEER, in the chair.

The PRESIDENT announced the death of Dr. J. P. Whitbeck, of West Troy, in some appropriate remarks. Tributes of respect were also paid to the deceased by Drs. R. H. Sabin, Craig, Moore, W. H. Bailey, H. March, and James S. Bailey.

The regular semi-monthly meeting was held January 22, the President in the chair.

Resolutions were offered by Dr. JAMES S. BAILEY, and adopted, in regard to the death of Dr. JOHN F. CROUNSE.

Dr. WILLIAM HAILES addressed the Society on the subject of the anatomy of necrosis in the connective and muscular tissues, illustrating his remarks by means of the stereopticon.

Dr. E. H. DAVIS read a paper on *pleuritic effusion treated by paracentesis*. After introductory remarks, he said: If there is any doubt as to the nature of the case after having examined the patient in the ordinary manner, we can in most cases, with perfect safety, make use of the exploring-needle to correct or confirm the diagnosis.

Having determined the existence of fluid in the pleural sac, questions arise how, when, and where shall we operate for its evacuation.

If the effusion be serous or sero-albuminous, a reasonable hope may be indulged that by suitable treatment it will, under favorable circumstances, be absorbed, however large the quantity. But if the pleura contain pus, constituting empyema, the hope of absorption is greatly diminished, if not entirely precluded.

Therapeutic agents, as purgatives, iodine, mercury, etc., have but little influence in promoting the absorption of pus, and, if such were possible, its influence might result disastrously.

When paracentesis thoracis becomes necessary, it should be resorted to without delay. The place selected for the opening should be where we are sure there is fluid, and where it can be most readily reached.

Miller, in his Surgery, directs us carefully to avoid the margins of the ribs, but in the cases I have operated upon I have selected the upper margin. In some cases I have used the bistoury, in others the trochar. When there is little or no bulging of the intercostal spaces, or when there is the least doubt as to what may be underneath, I should greatly prefer the bistoury, so as to make an open wound and penetrate the cavity of the chest no farther than to divide the pleura. In other cases, after dividing the integuments the trochar is all that is necessary, and is the most convenient.

Dr. Davis reported the following cases as having been operated upon by himself:

Case I.—J. K., æt. 17, mechanic, in June, while boating on the canal, was attacked with pleuro-pneumonia. In ten days from the attack he was brought home, and I was called to attend him.

He was still laboring under inflammatory action, which continued as many more days, and then began to subside and gave encouragement of recovery; but after a few weeks' continuance of it in the subacute form he began to exhibit symptoms of purulent effusion in the left pleural cavity, which gradually increased, when an operation became necessary for its removal. Previous to the operation the left side of the chest was greatly distended, widening the intercostal spaces over that side from the sternum to the spine, and without my being able to discover the respiratory murmur. There was dyspnœa with frequent cough, with but little ex-

pectoration. The appetite and digestion were greatly impaired, with rapidly increasing emaciation.

Before operating, he was placed in a chair, with his arm resting upon its back. The integuments were divided by a puncture from within outwards, about four inches to the left of the spine, and over the lower margin of the eighth rib. The integuments were then pressed upwards with the fingers of the left hand, and a trochar was passed close to the upper margin of the rib, and ten pints of pus were drawn off; as he became faint, the discharge was stopped with a tent, and the wound was dressed with adhesive plaster and a binder. The next day five pints more were taken, and as much more the day following, which emptied the pleural cavity. The tent was then removed daily, and the accumulating pus allowed to escape. The amount of discharge for the first ten days was estimated at thirty-two pints. His appetite now improved, and he partook of a large quantity of food, and digested it well.

For the next three months he continued to improve, but during the fourth month his strength began to fail, and he died by its completion.

No post-mortem allowed.

The points of interest in this case are, first, the large amount of pus discharged; second, the length of time he was able to sustain this great drain upon his system.

Case II.—G. P., captain of a canal-boat, æt. 33, of strong and vigorous constitution, was taken sick while on a trip to this city. Upon his return I was called to see him, and found him suffering with severe inflammation of the right lung, involving the pleura and already threatening suppuration. His previous treatment had been entirely inadequate to his disease and habit of body.

In a little over a month from the time he came under my charge there was evidence of pus in the right pleural cavity, and, believing that nothing could be gained by delay, I determined to evacuate at once while he had strength. I incised cautiously close to the upper margin of the sixth rib, and drew off five pints of pus, when a tent was inserted and the wound dressed with adhesive plaster and bandage. This was removed daily, and the discharge continued in gradually diminishing quantity for about three months, when it ceased, and the wound healed. At this time his cough was severe and he expectorated pus freely. If at any time he lay upon his right side, he could raise little or nothing, but if he then turned upon his left side the flow of pus would occasionally threaten suffocation, and he would expectorate from a gill to a half-pint in a few minutes, showing that the abscess had not only involved the lung but had formed a communication with the bronchi.

From this time he slowly improved until he completely regained his health.

This was at the time of the rebellion; and at the first call of the North for troops he enlisted in the army, and served with credit through the war.

Case III.—W. D., farmer, æt. 30, while ploughing caught a severe cold, which brought on a difficulty of the lungs, from which he never entirely recovered.

In about one year from this attack I was called to see him. He was then laboring under what I regarded as the inflammatory phthisis of Niemeyer. The right lung was to a great extent disorganized, but the left one was still in a condition to perform its functions.

By means of succussion the presence of air in the left pleural cavity was detected.

He was suffering great difficulty of breathing, and inability to lie down, from the feeling of impending suffocation.

I believed his case hopeless, and so expressed myself to him, but he urged me to operate for his relief. He was placed in a chair, and with a bistoury the integuments were divided, and a trochar was passed through the intercostal space close to the upper margin of the rib near the inferior angle of the scapula, and seven pints of pus were drawn off, greatly to his relief. The difficulty in breathing was relieved, and he could now lie down in bed and rest with comfort, which he had not done before in many weeks. He expressed himself as well satisfied with the result, although he died in less than three weeks from the operation.

No post-mortem was allowed.

There are three questions of interest connected with this case. First, did this pus have its origin in a pulmonary abscess which burst into the pleural cavity? Second, are such large accumulations of matter liable to occur in the course of phthisis pulmonalis? Third, did the relief obtained justify the operation at so late a period?

Case IV.—H. B., son of a farmer, æt. 19, was taken sick, and nearly one month later I was called in council with several other physicians. His family physician informed us that he had considered the disease pleurisy, and we fully concurred in his opinion.

We found him lying upon his left side, unable to change his position without great inconvenience, and his countenance expressed great suffering and anxiety. There was no sound of respiration, either morbid or natural, over the whole left lateral region. The side was a little distended, with prominence of the intercostal spaces. By placing the hand over the region of the heart, I marked the distinctness with which I seemed to feel its concussion against the walls of the chest. The stethoscope revealed the organ pulsating near the margin of the right axilla. I believed the case to be one of hydrothorax, and proposed to evacuate the fluid, but, as there was a difference of opinion on the part of a distinguished physician present, it was thought best to delay. In three days more we met again, and, as we were still unable to agree as to the propriety of opening the chest, we explained the difficulty to the patient and his friends, and, as he was rapidly failing, they expressed a desire that an effort to relieve by an operation should be made. He was accordingly raised in bed to a half-sitting posture, his head turned to the right side, and his left arm moved back out of the way; assistants held him in this position.

I then passed an exploring-needle through the intercostal space between the sixth and seventh ribs, three inches to the left of the sternum, and on withdrawing it water trickled down his side.

A bistoury was then employed to make an incision, two inches in length, through the integuments over the lower margin of the seventh rib.

This was slid upwards by the hand of an assistant to the place where I had previously passed the exploring-needle, and I carefully divided the intercostal muscle when I reached the pleura; this I punctured with a sharp-pointed bistoury, and the fluid discharged with a force that carried it at least ten or twelve inches from his side. It continued to flow until we had a common water-pail half full of a thin slightly albuminous liquid weighing thirteen pounds.

During the discharge of the effusion the heart gradually returned from its abnormal position near the right axilla towards the sternum, and the patient, instead of becoming faint or exhausted, expressed himself greatly relieved. He was gradually reclined over the edge of the bed till he was placed fully on his left side, and at the first sound of ingress of air the integuments were slid downwards, and the wound closed with adhesive plasters and bandage. There was no return of the effusion, and the wound was never reopened. He rapidly improved, and completely regained his health.

The disease left him with the left side of the chest slightly contracted, but the lung was healthy, and he

was able to follow the laborious occupation of a house-carpenter.

Upon motion the Society then adjourned, deferring the discussion upon Dr. Davis's paper until the next meeting.

REVIEWS AND BOOK NOTICES.

A System of Oral Surgery: Being a Consideration of the Diseases of the Mouth, Jaws, and Associate Parts. By James E. Garretson, M.D., D.D.S., Oral Surgeon in the Medical Department of the University of Pennsylvania, late Professor of Principles and Practice of Surgery in Philadelphia Dental College, etc. Illustrated with numerous steel plates and wood cuts. Philadelphia, J. B. Lippincott & Co., 1873.

In the preparation of this voluminous work, in which the author has attempted the difficult task of supplying the needs of the medical man and of the dental practitioner, he has drawn upon an experience not only of wide extent in oral surgery, but also embracing the full range of a general surgical practice, having enjoyed, particularly in the former direction, peculiar advantages for practice in his connection with the University of Pennsylvania. He does not, however, merely present his own experience and opinions, but has drawn largely upon the recorded observations of other authors. Although this may be open to the objection of increasing the size of the book, it adds much to its value, as the reader is thus enabled to compare the various views entertained by eminent histologists and pathologists on the points discussed. The work indeed has been so thoroughly revised, and in many parts rewritten, that it may very properly be esteemed a new book, rather than a second edition of the previous effort of the author. It opens with a concise description of the anatomy and physiology of the oral cavity; followed by the consideration of the pathological aberrations, which, with the therapeutical, surgical, and mechanical treatment indicated in the various affections, are given with a care and attention to detail that will prove of inestimable value to the practitioner, whether engaged in some trying and difficult operation, or in those of a more simple character. The past few years have been remarkably fertile in the production of ingenious labor-saving inventions; all of these have received due attention from the author. Considerable space is devoted to the consideration of Tumors. All tumors are placed under one of two heads,—the "self-explainable" and the "non-explainable;" hernia, dentigerous cysts, steatoma, ranula, hydrocele, aneurisms, etc., belonging to the first class, as such tumors "are in themselves necessarily benign." Every tumor, no matter what its histoid nature or what its situation, that is without a local self-explanation, is placed in the second class, being tumors of a vice expression. While by no means prepared to agree with all the views advanced by the author on this subject and in other directions, we recognize that he has made it one of careful and laborious investigation, and that his opinions are therefore entitled to respectful consideration, particularly as the main object is simplicity in the classification of tumors so as to aid in arriving at an accurate diagnosis. In the perusal of the work and in the preparation of this brief notice of its contents, we have not been indifferent to the unceasing devotion of the author for many years past to his theme, and, sympathizing in the aim to produce a comprehensive treatise on the subject, we have sought out its excellencies rather than endeavored to detect and magnify errors. The work is profusely illustrated, and commends itself alike to the physician, surgeon, and dentist, as a valuable and practical work of reference. The typography and general mechanical appearance sustain the reputation of the house from which it emanates.

BOOKS AND PAMPHLETS RECEIVED.

A Treatise on the Theory and Practice of Obstetrics. By William H. Byford, A.M., M.D., etc. etc. Second Edition; thoroughly revised. 8vo, pp. 469. New York, William Wood & Co., 1873.

The Diseases of the Stomach. Being the Third Edition of the "Diagnosis and Treatment of the Varieties of Dyspepsia." Revised and enlarged. By Wilson Fox, M.D., F.R.C.S., F.R.S., etc. etc. 8vo, pp. 236. London & New York, Macmillan & Co., 1872.

A Treatise on Apoplexy, Cerebral Hemorrhage, Cerebral Embolism, Cerebral Gout, Cerebral Rheumatism, and Epidemic Cerebro-Spinal Meningitis. By John A. Lidell, A.M., M.D., etc. etc. 8vo, pp. 395. New York, William Wood & Co., 1873.

Dental Caries and its Causes. An Investigation into the Influence of Fungi in the Destruction of the Teeth. By Drs. Leber and Rottenstein. Translated by Thomas H. Chandler, D.M.D., etc. With Illustrations. 8vo, pp. 103. Philadelphia, Lindsay & Blakiston, 1873.

Myringectomy, followed by Decided Improvement in the Hearing-Power, etc. By J. S. Prout, M.D., of Brooklyn, N.Y. (From the Transactions of the Medical Society of the State of New York, 1872.) 8vo, pp. 10. Albany, 1873.

Transactions of the Medical Society of the State of West Virginia, for 1872. 8vo, pp. 432. Wheeling, 1872.

GLEANINGS FROM OUR EXCHANGES.

Development of Carcinoma (Waldeyer: *Virchow's Archiv*, 1872, lv.).—This paper contains the results of an examination of 203 cases of primary carcinoma. In 54 cases of carcinoma of the outer portion of the skin, the author makes the following classifications: 1. *C. adenoides*, which closely resembles simple hyperplasia of the glands. 2. *C. papillare*, of which *fibroma papillare* is the prototype, from which it is distinguished by proportionately greater development of epithelium, which fact really decides the character of the tumor. 3. The deeper-seated medullary cancer. 4. The reverse of this form, *C. cutis superficiale*, to which we must join *ulcus rodens*.

In this form of cancer we find at the edges, near the healthy tissue, vascularization of the epithelium. In some cases the capillaries extend into the epidermis, and at the borders of the vessels we find numerous cells which must be considered white blood-corpuscles.

In connection with this excessive growth of epithelium we often find great infiltration of the connective tissue, with new elements, so that between the masses of epithelium true granulation-tissue is found, and we then have *C. granulosum*.

In this form Waldeyer has discovered a transition to certain forms of lupus, in which he likewise found abnormal growths of the rete Malpighii extending into the lupoid granulation-tissue.

5. *C. keratoides.*

In all these forms it is readily shown that the development of the characteristic cell-cones originates from the interpapillary depressions of the rete; sometimes, though rarely, from the hair-follicles and sudoriferous glands. The processes which occur on mucous membranes covered with layers of pavement-epithelium are analogous. Cancers of the uterus, especially those forms belonging to this head, *i.e.*, those of the *portio vaginalis*, show a great inclination to the growth of granulations of the highly vascular stroma, and hence they cause frequent and profuse hemorrhages.

The author next speaks of cancerous forms found in organs possessing cylinder-epithelium, and cites four cases of rectal cancer and two cases of cancer in the large intestines.

The development of the cancerous bodies originates in the follicles of Lieberkühn. In ulcerative forms of cancer of the stomach it is very difficult to decide between carcinoma and simple *ulcus rotundum.*

In fifty-nine cases of carcinoma of the mamma, it was readily seen that in the beginning there is a constant increase in size of the glandular acini, with separation of the same from each other by periacinous growth of small cells. In primary cancer of the kidney and liver it is not difficult to find the origin of the cancerous growths in the uriniferous tubules and the gall-ducts.

Respecting new formations in the brain, Waldeyer is disposed to regard these as plexiform angio-sarcoma, containing cell-elements derived from the perithelial cells of the smallest vessels. He also thinks that there is no proof of the primary occurrence of true cancer in organs *which do not contain epithelium*, as, for example, bone, muscle, lymphatic glands, the heart, blood-vessels, the spleen, serous membranes, and subcutaneous connective tissue, or at least its appearance must be classed among the greatest rarities. In closing his work on the growth of cancer, Waldeyer repeats his theory that all carcinomatous growths originate in pre-existing epithelium, so that the terms cancroid and carcinoma need not be used for purposes of distinction. Cancer is therefore *abnormal* or *atypical epithelial tumor.*

Case of Extra-Uterine Pregnancy (by Dr. Soyre: *Le Mouvement Médical*, January 4, 1873).—The woman was seen in the city by MM. Chantreuil and Guéniot. It was thought, on examination, that she had a fibroid tumor of the uterus, or else that dropsy of the amnios existed. The possibility of the existence of a twin pregnancy was also, for a time at least, thought of.

The patient was sent to the Hôpital des Cliniques. The diagnosis remained uncertain. For the purpose of relieving the dropsy of the amnios a stylet was introduced to perforate the membranes. Perforation of the uterus was the sole result of this operation. The woman died; and it was found at the autopsy—1, that the tumor consisted of the placenta and large clots of blood; 2, that the case was one of extra-uterine (abdominal) pregnancy; 3, that *hydramnios* really existed.

MM. Chantreuil and Guéniot insist on the difficulties of the diagnosis. In this case, the laminated blood-clots surrounding the placenta, attached to the posterior surface of the uterus, imparted to the touch the sensation of a fibrous growth. M. Lionville has recently seen a case of extra-uterine pregnancy at the Hôtel-Dieu, in which the blood-clots were also quite numerous.

A Case of So-Called "Wandering Liver" (Winkler: quoted from the *Centralblatt f. Med. Wiss.*, No. 40, 1872).—Three cases of this abnormal condition have been described by Cantani, Piatelli, and Meissner. To these Winkler adds the fourth case of abnormal mobility of the liver.

In the case related by him, it was possible to press the hand high up into the *excavatio diaphragmatica*, between the costal arch and the liver. In the upright position the liver reached as far as the anterior superior spinous process, and was twisted forward upon its transverse axis. The organ could be replaced. Palpation revealed a normal form and consistence of the liver. The lengthened suspensory ligament could be felt as a sharply defined membranous surface. The cause in this case, as in the other cases, was persistent relaxation of the abdominal wall after pregnancy. An explanation of the icterus in this case may be found in the injury and torsion of the tissues entering the hilus of the liver. The treatment consisted in the application of a firm bandage, made to press from below upwards.

The Thermometer as a Means of Diagnosis in Cases of Uræmia (*Lancet*, Jan. 4).—M. Hanot recently presented to the *Société de Biologie* the notes of a case in which death occurred through uræmia in a patient affected with general paralysis. The uræmic symptoms were produced by pressure of an enlarged carcinomatous uterus on the ureters, and consisted chiefly of a sort of coma and stertorous breathing. The diagnosis was rapidly made out, and the case distinguished from cerebral hemorrhage and softening by means of the rule set down by Dr. Bourneville of considerable fall of temperature in uræmia. In this instance the thermometer showed 34° C at the outset of the symptoms, the following morning 30°, and at the time of death only 20°.

Calabar Bean in Constipation.—M. V. Subbotin recommends, in cases of constipation, the following formula:

℞ Ext. physostigmæ ven., gr. iij;
Glycerinæ, f℥ij.

M. S.—Four drops four times daily.

MISCELLANY.

University of Pennsylvania.—On Saturday last, February 8, by invitation of the Trustees, a large number of influential and representative men, many of them members of the Constitutional Convention or of the State Legislature, met in the new University Building, Thirty-fourth and Locust Streets. A most interesting and instructive tour of the various departments was made, under the guidance of Professors Genth, Lesley, and Frazer, after which a collation was served, followed by several addresses, chiefly from gentlemen connected with the institution. Hon. Morton McMichael presided. Prof. Lesley presented briefly, but clearly, the good work done and doing by the Academic and Scientific Departments. Rev. Dr. Beadle, on the part of the Board of Trustees, made a singularly forcible and telling speech in vindication of the broad, catholic basis upon which the University is now placed. He was followed by Prof. D. Hayes Agnew and Dr. William Pepper, who presented more prominently the present position of the Medical Department, and the urgent need of a further legislative appropriation to insure the completion of the new Hospital Building. The closing remarks were made by Hon. Mr. Chalfant, of the State Senate, assuring the audience of his warm sympathy with this latter project. Our readers may remember that the last Legislature appropriated $100,000 towards the erection of

the University Hospital, dependent upon the subscription of $250,000, which has since been obtained and the appropriation secured. The plans which have been adopted for the building call for an expenditure of over $200,000; and application has now been made for a second legislative grant of $100,000 contingent upon the subscription of an equal additional sum.

We learn that the prospects for securing both this appropriation, and that asked for by the Trustees of the Jefferson College for a similar purpose, are encouraging. It is our earnest hope that they may both succeed, and thus enable the two schools to provide the enlarged clinical facilities for their students which are so much needed in this city at present.

A NEW periodical, the *Medical Record*, has made its appearance in London. We presume the British medical mind will be undisturbed by the fact that the *Medical Record* of New York is in its seventh volume. And yet we do remember the howl that arose when our modest enterprise was begun, under the title *The Medical Times*, because *The Medical Times and Gazette* was already prosperously established. Either our action was innocent, or this "adoption" of the entire title of an existing journal is a very flagrant violation of the proprieties.

AN enterprising publisher in London has begun the issue of a series of photographic portraits of eminent medical men, now living, with biographical sketches, said to be revised by the subjects themselves. But the style of the sketches is so highly laudatory that Sir Thomas Watson has felt called upon to disclaim having either prepared or revised the one relating to him; and a similar denial has been made on behalf of Sir William Fergusson.

PRIZE.—The Venetian Institute of Science, Literature, and Art will, says *Le Mouvement Médical*, award, in 1874, a valuable medal to the best work on the following topic: To show the advantages to medical science, and especially to physiology and pathology, of the modern discoveries in physics and chemistry; with a retrospective summary of the systems of medicine which have prevailed in the past.

NEW JOURNAL.—The same periodical mentions the receipt of numbers of a journal entitled the *Gazette Médicale de Bordeaux*, issued on the 5th and 20th of every month, sixteen pages octavo. The editor-in-chief is M. Fleury.

STILL ANOTHER.—From the same source we learn that a new obstetrical and gynæcological journal has appeared in Paris, entitled the *Gazette de Joulin*. "This title," it is said, "adopted to prevent confusion with any other similar publication, shows sufficiently that the editor is willing to assume the entire responsibility of his work."

MR. CARDEN, of Worcester, England, who died lately, had much to do with the restoration to favor of the operation of amputation at the knee.

M. CYON, who recently received the honors of the French Institute for his discoveries in regard to the nervous system of the heart, has been nominated professor of physiology in the Académie Médico-Chirurgicale at St. Petersburg.

IT is stated by telegraph that the French government, without stating its reasons for doing so, has issued an order directing the closing of the medical school at Montpellier.

THE death of M. Dubois (d'Amiens), perpetual secretary of the Académie de Médecine, is announced.

M. PIERRE CH. HUGUIER, of Paris, died on the 12th of January, aged 68 years.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending February 8, 1873, were 335; 195 adults, and 140 minors. 11 were of bodies brought from the country; making the mortality of the city 324. Among the causes of death were:

Consumption of the Lungs	62
Other Diseases of the Respiratory Organs	57
Diseases of the Circulatory Apparatus	17
Diseases of the Brain and Nervous System	67
Diseases of the Digestive Apparatus	15
Zymotic Diseases (2 from Smallpox)	27
Typhoid Fever	2
Casualties	8
Exposure	1
Murder	1
Suicide	1
Cancer	6
Debility (including "Inanition" and "Marasmus")	24
Still-born	12
Old Age	10

(The interments reported for the week ending February 10, 1872, were 500.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER.		BAROMETER.
	Max.	Min.	(2 P.M.)
Feb. 2	22.0°	14.0°	30.53 in.
" 3	36.0	17.5	30.17 in. (Rain.)
" 4	47.0	36.0	29.85 in.
" 5	40.0	32.0	30.33 in.
" 6	45.0	30.0	30.30 in.
" 7	40.0	36.0	29.84 in. (Rain.)
" 8	44.0	35.0	29.88 in.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JANUARY 28, 1873, TO FEBRUARY 3, 1873, INCLUSIVE.

DE WITT, CALVIN, ASSISTANT-SURGEON.—To accompany Troop "K," 1st Cavalry, from Reno, Nevada, to Camp Bidwell, California, and, on arrival, report to the Commanding Officer of that post for duty at Camp Bidwell, or in the field. S. O. 12, Department of California, January 20, 1873.

CAMPBELL, A. B., ASSISTANT-SURGEON.—Assigned to temporary duty at Chicago, Illinois, to examine recruits. S. O. 21, War Department, A. G. O., January 25, 1873.

SATURDAY, FEBRUARY 22, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 307.)

PHLEGMONOUS LARYNGITIS.

LARYNGITIS phlegmonosa (Bouillaud); *laryngitis submucosa* (Cruveilhier); *angina laryngea infiltrata* (Sestier).

This is a form of laryngitis in which the inflammatory processes affect especially the sub-mucous tissues. Though there is no doubt that it occurs sometimes as an idiopathic inflammation, it is seldom encountered as a primary affection, but rather as a secondary one following in the wake of erysipelas, typhus fever, pyæmia, and so on. It is to be distinguished on the one hand from œdema of the larynx, and on the other from the sero-purulent infiltration of the sub-mucous layers occurring in some cases of inflammation of the laryngeal mucous membrane. It is also to be discriminated from true erysipelatous laryngitis, with which it is not unfrequently confounded. For this discrimination we are mainly indebted to the researches of Bouillaud, Cruveilhier, Valleix, and Sestier.

This serious affection terminates in suppuration with destruction of the connective tissue, and sloughing of the superjacent mucous membrane; and in some cases leads to perichondritis and necrosis of the cartilages, principally the arytenoids. Chronic or permanent thickening of the sub-mucous connective tissue ensues, which may result in stenosis of the larynx. The mucous membrane is very apt to participate in the inflammation, sometimes in a great degree, perhaps always to some extent. Occasionally the inflammation spreads to the sub-mucous layers of the pharynx, and to those of the soft palate; under which circumstances it is apt to set up acute inflammation of the cervical and submaxillary lymphatic glands.

Its most frequent seat is the upper portion of the larynx, the base of the epiglottis, and the arytenoepiglottic folds, causing tumefaction of these structures, but to a less extent than that met with in œdema of the larynx.

It has been found beneath the glottis; but here it seldom gives rise to much respiratory trouble. The case of subglottic œdema related by Gibb, in which he found the infiltration simulating a morbid growth, was evidently of this nature.

Rokitansky remarks that the inflammation of the laryngeal sub-mucous connective tissue spreads thence along the inter-muscular and even subcutaneous connective tissue of the neck; and sometimes even starts from here. In these cases there is usually extensive sloughing, with fatal termination.

The symptoms of sub-mucous inflammation of the larynx are similar to those of œdema of the larynx; but they are less in degree, slower and more gradual in their appearance, and are attended with the phenomena of fever. Time is required for the inflammatory process to terminate in suppuration.

The treatment advocated for this affection is the early application of leeches externally, followed by warm fomentations, and free and extensive incisions from the exterior of the throat down to the purulent accumulations; but, as stated by Porter, we must not entertain too favorable an opinion of their efficacy. He says, "If the infiltration was limited in extent, or consisted of a serous fluid alone, or if it could be reached, or, being reached, could be evacuated, there would be a reasonable chance of relief for the patient; but the very opposite of these conditions is generally the true one. In diffuse inflammation of the neck, incisions may be made down into the diseased structure without giving exit to a teaspoonful of fluid, and, after death, the entire cellular tissue of the part engaged may be found of a dark-green and sometimes of a brown color, dead, putrid, and horribly offensive. The difficulty of breathing, however apparently severe, is only a secondary consideration; and even if removed, the patient would perish nevertheless of that low and typhoid condition which always attends these affections."

For similar reasons, Porter cannot admit even the contemplation of the operation of tracheotomy, which, he says, "could not succeed, and would not even possess the miserable second-rate merit of being a last resource, or offering a patient a chance of life." Nor is it recommended by Mr. Gray;* but Dr. Gibb thinks that it should be attempted to hold out a chance for life; and he mentions, in his work on "Diseases of the Throat," a case in which a very difficult tracheotomy was successfully performed, by Dr. Pollock, in St. George's Hospital.

ERYSIPELATOUS LARYNGITIS.

Though there can be no doubt that erysipelatous laryngitis occasionally occurs as an idiopathic affection, most of the cases which have been reported were encountered in hospital practice during the prevalence of epidemic erysipelas; but, since the general institution of the hygienic measures at present in force in every well-conducted hospital, it has been encountered much less frequently than formerly. It is usually attended with an erysipelatous inflammation of the palate, pharynx, or tongue, and sometimes preceded by a manifestation of this nature, which may extend from these structures outwards over the cheek. Sometimes the erysipelatous laryngitis occurs as an extension of external ery-

* Holmes's System of Surgery, vol. iii. p. 232, "Diffuse Inflammation of the Cellular Tissue of the Larynx."

sipelas of the scalp and face. Sometimes it* occurs as a sudden metastasis from erysipelas in some other portion of the body, and subsides externally† on its engaging the internal structures.

It is liable to terminate in œdema of the larynx, and thus to prove fatal by asphyxia. Diffuse abscesses of the sub-mucous connective tissue often ensue from the inflammatory process, the sloughs from which, on examination after death,—for this disease is almost invariably fatal,—present an appearance similar to that of analogous sloughs in the subcutaneous connective tissue, the result of erysipelas occupying the surface of the body. The depots of pus in these instances are found upon the external surface of the larynx, as well as in its interior, and may involve the epiglottis as well as any of the laryngeal cartilages. The trachea is sometimes invaded by the erysipelatous inflammation, and presents similar manifestations in its sub-mucous tissue.

The lecturer stated that his opportunities for observing this disease had been so few in number that he should rely mostly on the records of other observers for statements of the appearances manifested.

Dr. Gibb,‡ in his account of the affection as observed by himself, mentions that the sore throat is preceded by shivering and fever, there being "vivid redness and swelling of the fauces, difficulty of swallowing, and pain in the larynx," adding, that "the voice is hoarse, sometimes whispering, and, what is perhaps an early and an unfavorable sign, urgent dyspnœa is present." He also states that it is fortunate for the patient if the erysipelas appears externally, as there is then a prospect of recovery, for the activity of the symptoms subsides, and they gradually disappear.

In a case where the head and face were primarily affected with erysipelas, which had thence extended to the throat and larynx, Dr. Gibb found, upon making a laryngoscopic examination, "that the fauces were of a bright and shiny scarlet redness, and so was the mucous membrane covering the laryngeal surface of the epiglottis, the interior of the larynx, the vocal cords, and the trachea, associated with tumefaction, but not at that moment affected with œdema."

Ryland has detailed some cases in which there was no connection with external erysipelas, although erysipelas was prevalent at the time in the hospitals in which these cases occurred.

"Black tongue" is a popular term frequently employed to designate an epidemic erysipelatous inflammation of the throat and fauces. Prof. Gross,§ who observed many cases in 1844–45–46, when erysipelas prevailed extensively as an epidemic in this country, and often invaded the air-passages, thus describes the appearances: "The tongue was dry, excessively enlarged, of a dark livid hue, and incapable of protrusion; the uvula, tonsils, and arches of the palate were deeply discolored, rigid, and œdematous; the sub-mucous cellular tissue of the larynx and trachea was extensively infiltrated with serum, or serum and lymph; the lungs were inflamed, the bronchial lymphatic glands were softened, and the thoracic cavities often contained a considerable quantity of serum and pus. If the patient survived any length of time, profuse suppuration and sometimes even extensive sloughing occurred, abscesses formed in the neck and other parts of the body, and ulcers of different shapes and sizes appeared in the throat. The parotid glands sometimes suffered very severely." After giving a very graphic account of the low typhoid character of the symptoms attending erysipelatous laryngitis, he adds, "The danger of this disease is generally imminent, most of the cases terminating fatally within the first four or five days, the immediate cause of death being asphyxia or exhaustion."

After death the parts are found in a sloughy condition, of a red, brownish, or greenish color, a purulent infiltration occupying the tissues of the epiglottis, ary-epiglottic folds, and even the glottis; a coating of lymph is often seen upon the free surface of these structures. The trachea is apt to be more or less reddened, but the œsophagus generally remains quite free from any traces of inflammation.

As already intimated, most of the reported cases have terminated fatally; still, a few are stated to have recovered. The treatment recommended is nutritive, tonic, and stimulant from the very commencement of the affection, with the use of anodynes to allay pain and repress cough; the most suitable tonics being the tincture of the chloride of iron in combination with quinia. Ryland and Gross favor the use of leeches externally in young and robust subjects, and the subsequent application of blisters. The inhalation of steam from hot water is stated by Ryland to form a valuable topical application, often relieving the dry and inflamed condition of the mucous membrane. Dr. Gibb, in his case, in addition to the nutritive, tonic, and stimulant treatment internally, made a local application, every six hours, of a solution of nitrate of silver, four scruples to the ounce of water. Supraglottic œdema, he states, was about commencing when the topical agent was first applied. In twenty-five hours the most marked relief had taken place, and in forty-eight hours the patient was out of danger and the erysipelas was slowly subsiding externally. When symptoms of asphyxia are present, or when the dyspnœa is excessive, tracheotomy is recommended by Ryland, Gross, and Gibb, but it is unhesitatingly condemned by Porter; nor did the lecturer recollect a single case reported in which the patient was saved by this means. "The progress of the disease," says Porter, "cannot be checked by any operation; and, instead of affording even temporary relief, its tendency must be to accelerate the event." When we reflect that Porter extolled tracheotomy in many cases of laryngeal disease where it was condemned by others, we must give due consideration to this decidedly unfavorable opinion of the efficacy of the operation in this affection.

ABSCESS OF THE LARYNX.

Primary abscess of the larynx is a very infrequent disease. Abscess of the larynx can nearly always

* Gibb, The Throat and Windpipe, p. 232. † Porter, p. 95.
‡ Loc. cit.
§ System of Surgery, 1872, vol. ii. p. 385.

be recognized with the laryngoscope. The first case of this seen was reported by Türck,* but was one of secondary abscess resulting from extensive perichondritis. Many other cases have been observed since, the lecturer having frequently detected them. Navratil† mentions a remarkable case of laryngeal abscess involving the right side of the epiglottis, the ary-epiglottic fold, and the arytenoid of the same side. After the spontaneous discharge of an ounce of blood and pus, on the sixteenth day of the disease, Navratil saw by the laryngoscope the ragged edges of the ruptured abscess, and that it had started from the right ventricle.

A very interesting history of primary abscess, occurring in a child four years old, and terminating in fatal stenosis, will be found in *Schmidt's Jahrb.*, Bd. 118, 1863. Another very instructive case is reported in the *Lancet*, 1868, p. 757, by Dr. Marcet and Mr. Hillman. In this case the abscess was opened twice at an interval of three months, and finally a tracheal tube had to be inserted, which was not removed for several months.

Abscess of the larynx, as a rule, however, is a secondary affection, the result most frequently of perichondritis or of chondritis of the laryngeal cartilages; but in some instances it has ensued upon some systemic disease, such as typhus, pyæmia, glanders, etc.

Abscesses of the larynx, unattended with severe pain or dyspnœa, may yet prove rapidly fatal. Stromeyer relates the case of a cavalryman who was on parade at noon and was suddenly suffocated at five in the afternoon. The tongue and larynx of the man were sent to him by Surgeon Döring. He found an abscess the size of an acorn at the base of the epiglottis, and this had led to fatal œdema glottidis. The man had not reported himself as sick, although he had complained at home for a few days about an uncomfortable irritation in his throat.

Abscesses of the larynx sometimes attend typhus fever. Small abscesses form beneath the mucous membrane, and larger ones beneath the perichondrium. They appear, fortunately, in but few cases, and during the second and third weeks,—sometimes not until the period of convalescence. Sometimes they are associated with similar conditions of the nasal passages, palate, and pharynx. The laryngeal complication is usually indicated by cough and dysphagia. Sometimes œdema of the larynx is also added.

A laryngeal abscess is generally seen in the laryngoscopic mirror as a glistening circumscribed swelling, red in color at its base, sometimes red, sometimes yellowish at its apex. The locations in which abscesses have been most frequently observed are upon the lower laryngeal surface of the epiglottis, upon the inner surfaces of the arytenoid cartilages, upon the inner surface of the meso-arytenoidal fold, and surmounting the eminences of Santorini. An abscess of the larynx will in time open spontaneously into the cavity of the larynx. Under certain circumstances, when it can be seen in the laryngoscopic mirror, it can be punctured by a properly-curved knife. As soon as the abscess is opened, the pus is discharged by cough, and then there is usually immediate relief to all the symptoms of pain, tension, and hoarseness.

Occasionally a second abscess will follow closely on the first, and sometimes be succeeded by a third, or even by a fourth, some months later.

It may happen that a case of abscess of the larynx may be recognized under circumstances of inability to open it. If it should be in such a location as to impede the motions of the muscles controlling the patency of the glottis, whether by pressing upon them or by exciting serous infiltration into their tissue, the question of the propriety of performing tracheotomy will have to be considered, especially if there be any manifestation of a tendency to spasm of the glottis.

* Klinik d. Kehlkopfkrankheiten, p. 185.
† Laryngologische Beiträge, 1871, p. 20.

CLINICAL LECTURE ON CHRONIC MYELITIS.

BY DR. H. C. WOOD, JR.

Delivered at the Philadelphia Hospital.

Reported by Dr. W. H. PARISH, Resident Physician.

(Concluded from p. 309.)

LET us now consider the case of the other man before us. We shall find it to be of an entirely different nature. His history is as follows:

Nelson S., a native of Indiana, æt. 30, gives us the following account of himself up to the time of admission to this hospital. He has never suffered from syphilis, but has led a most dissolute life, being addicted to the most excessive venery, so much so as to indulge his passion nightly, and often, according to his statements, four or five times during a night. In June, 1871, he for the first time experienced uneasy sensations in the lower extremities, with a weakness of the back. Soon there were positive sharp and shooting pains along the spine, with occasional muscular cramps over most of the person. He was now forced to quit work,—his employment being that of a harness-maker. Yet he continued to walk about for several months, and did not leave off his dissolute habits, though daily losing the strength of the muscles, chiefly of the lower limbs. In September it seems that the pains and cramps disappeared, but there remained a decided paresis of most of the muscles, especially of those of the lower half of the person. General sensation was also diminished. In November, 1871, while walking on the street, his legs suddenly entirely failed him, and he had to be carried home. From that time he was confined to his bed, and in a few days was unable to move the lower extremities in the least. During the succeeding winter there was a feeling as if a cord had been drawn tightly around the upper portion of the abdomen. In December he lost the power of emptying his bladder, and subsequently there was inflammation of that viscus, probably from distention. Afterwards incontinence of urine supervened. The bowels from the first were usually constipated. In February there was marked formication in the lower extremities. On admission to the hospital, May 9, 1872, there was almost complete paralysis of both lower limbs. He was altogether unable to walk, and could scarcely raise his heels from the bed when lying in the supine position. The muscles of the lumbar region were also paralyzed, and he could not turn himself in bed. There was numbness in the left upper and in both lower ex-

tremities. An induced electrical current showed the muscles of these members to respond but feebly, and there was decided loss of electro-sensibility, this loss being most apparent in the right lower limb. The prick of a pin produced strong reflex movements in the left, but not so strong in the right lower limb. There were no muscular spasms, no rigidity; the affected muscles lay quiet and flabby. There was no pain in the back. The bowels were constipated, and micturition, though frequent, was accomplished at will. The sexual functions seemed in abeyance. The urine was free from albumen. There were no evidences of cerebral derangement. The sight and hearing remained unimpaired. On the inside of the left foot the points of the æsthesiometer could not be recognized as two when one inch apart, but on the right foot they could. Nowhere in the left leg could the points be recognized when three inches apart. On the inner side of the right leg they were recognized when an inch and a half apart.

The man was ordered phosphorus, gr. $\frac{1}{50}$ *ter die;* the affected muscles were to be faradized, and a continuous current to be passed along the spine.

On June 1 the man was able to move the right lower extremity with much more facility than on admission; motion in the left lower limb was also slightly improved. Electro-contractility was also somewhat increased in both, the muscles of the upper responding much more decidedly than did those of the lower extremities. A sensation at one time felt, as of sand in the hand, had entirely disappeared. The man was able, but with some difficulty, to raise himself in bed, and could turn himself quite readily. The patient continued to improve until the 13th of June, when his temperature rose to 104° F., with pains in the lumbar and the left iliac regions. These symptoms, with a temperature occasionally getting as low as 100° F., continued until the 25th of the same month. At the beginning of this febrile attack the electricity and phosphorus were suspended. Quinine and other febrifuge medicines were given.

July 1.—Since the 25th of June there has been no fever. There seemed to have been no change in the muscles during the past month. Phosphorus and electricity were resumed.

August 1.—During the last two weeks there has been a slow but steady improvement. The arms have become restored to almost a normal condition. The muscles of both lower extremities seemed less flabby, though both the members were frequently bathed in a cold perspiration. Motion in both has improved. The sexual functions seem in abeyance still, though erections occasionally occur. The electrical treatment has consisted in the passage of a continuous current, obtained from fourteen cells of a large Stöhrer's battery, along the spine; the positive pole being above, the negative below. An interrupted secondary current was also applied; this directly to the affected muscles. These two currents were used on alternate but different days. The phosphorus, with occasional intermissions, had been continued. The constipation required remedies for its relief, and anti-dyspeptic treatment was sometimes resorted to.

December 1, 1872.—The man has been steadily improving. He has for several weeks been able to walk about in the ward with crutches, and now does so with two sticks. The muscles seem to be rapidly regaining strength. Constipation is not so troublesome. The urine is normal, and is passed naturally. There has been no variation in the course of treatment, excepting that strychnia was lately substituted for the phosphorus, but the change did not seem to answer, the patient stating that he had not as good control over his muscles as when taking phosphorus.

The symptoms in this case point first to a state of congestion and exhaustion of the cord; then, as these conditions became more marked, the symptoms became more serious, until positive paralysis resulted from, as I believe, myelitis, which did not, however, reach the condition of actual softening, although of that type. This opinion is founded upon the circumstance that the symptoms have been too persistent for congestion alone, and it seems impossible to restore to their normal state spots of fully-formed inflammatory softening. However, whatever the pathological change may have been, the result has been a triumph for modern therapeutics. Not many years ago this man would have been hopelessly bedridden.

But let us look for the cause of his earlier symptoms and of the final paralysis. Undoubtedly they were all due to excessive venery. Nightly, and occasionally repeatedly each night, he was in the habit of indulging his passion; nor did he desist when the earlier phenomena gave him a friendly warning. Of course many similar cases stop short of the severity of this one, and you, as professional men, must not forget a probable cause of many of the spinal troubles of your patients. Not long ago a man came to me, saying that he had suffered a wrench of the back, and was then experiencing uneasy sensations as of tingling and of formication along the lower extremities, with a diminution of muscular power. He felt nervous and weak generally, with a great loss of strength of the back and paresis of the legs. On pushing some questions, he stated that his wife was afflicted with nymphomania, and that, as a therapeutic measure in her behalf, he for two or three weeks had been having sexual intercourse with her from three to five times nightly.

The interesting feature of the case was that, although he had not had sexual intercourse for some months, the symptoms had not ameliorated in the least, and the man was really in a forlorn condition, scarcely able to attend to his work, whilst the exhibition of phosphorus sufficed in two or three weeks to restore him to his normal state.

During the sexual act there is doubtless a decided reflex excitement, with active congestion of the nervous centres, and especially of the cord. There is always in the crisis of the orgasm a local spasm, as of the seminal vesicles, and a semi-convulsive action of the whole muscular system, which sometimes amounts to a true spinal convulsion, and at all times points to an intense excitement of the reflex centres of the cord. Such functional excitement is always accompanied with more or less congestion, and in the old the blood-vessels of the brain have given way before the congestion attendant upon the orgasm, with the result of fatal apoplexy. After intense functional activity of a nervous centre there usually soon follows a state of more or less exhaustion, with a subsequent and gradual return to a normal condition. If, however, before this normal state is arrived at, the cause of the excitement again operates, the same process of excitement, congestion, and exhaustion is again gone through with. When this is repeated again and

again more frequently than the congestion can be relieved and the exhaustion recovered from, both of these conditions become permanent. The point I want to impress upon your minds is that in such cases there is not merely nervous exhaustion or spinal congestion, but *both together*, and that the congestion and the so-called inflammatory condition of the cord which supervene are really not a nutritive action above, but *below* the normal grade; not an inflammation, such as a phlegmon, but a perverted nutrition, in which all the actions bespeak loss of vital force,—a process more akin to softening of the brain than to acute inflammatory cerebritis.

The form of paralysis due to excessive venery is usually that of paraplegia accompanying inflammatory softening of the cord. I have never seen a case of sclerosis thus caused. With the different stages of congestion and exhaustion, or of inflammatory change, there will be more or less marked aberrations of sensation and motion, or, in other words, more or less complete paralysis.

If you have a patient with the earlier of these symptoms, what shall be your treatment? Of course an essential part of it must be the avoidance of the cause; for otherwise the medicinal treatment will be of no avail. The best way to effect this is to send your patient alone on a tour for a few weeks, if he be well enough. At any rate, insist upon his sleeping in another apartment from his wife, if married; as the only method of maintaining the necessary absolute abstinence is to keep out of temptation.

There are some who recommend ergot in such cases, saying that it produces a contraction of the smaller blood-vessels and thus relieves capillary congestion. Most probably it does have this effect; but I have obtained better results from the use of phosphorus than from any other remedy. As already insisted, when the patient applies for relief the congestion has ceased to be an active one, but is passive and attended with exhaustion. Phosphorus is believed to stimulate the circulation of the cord, and to thus relieve the passive congestion. Whether this be true or not, I feel very sure that it influences the nutrition of neural structures to a greater extent than any other known drug, not excepting strychnia. The latter is a powerful functional motor stimulant, but its power of influencing the nutrition of the cord is comparatively slight. Do not give phosphoric acid and think you are giving phosphorus. If you wanted the effects of sulphur, you would not give sulphuric acid. Be careful, too, in administering phosphorus in the pill form. Remember that the least particle of solid phosphorus coming in contact with the stomach will produce an ulcer,—a not insignificant complication. Dr. Percy, of New York, has lately suggested cacao butter as a suitable vehicle. This, he states, when melted, which it does at 100°F., will readily dissolve phosphorus, and thus, when cooled, an oily solution of the drug can be given in the pilular form. I have not put this suggestion to the test, and hence am unprepared to pronounce on its value. I have generally used an oily solution: phosphorus gr. xij in ol. olivæ f℥i. Of this I begin with one minim in mist. acaciæ, and gradually increase it to three or four minims thrice daily. The effect on the stomach must be watched; and if dyspeptic symptoms show themselves you must suspend its use. This drug will be found of considerable value in other cases of perverted nerve-nutrition, such as hypochondriasis and hysteria.

Electricity is another remedy that must not be neglected in the treatment of the various degrees of paralysis following excessive venery. It is, however, doubtful if an electrical current ever reaches the spinal cord. When passed along the spine, it never produces the least muscular movements; and yet if the cord of an animal be exposed and the electrodes be applied directly to that structure, violent muscular spasms will immediately occur.

There seems to be but little doubt, however, that a continuous electrical current passed along the spine is attended with positive benefit; but the good it does is most probably due to a reflex influence on the cord.

I am very much in doubt as to the possibility of galvanizing the sympathetic nerve when unexposed. Our attempts are never attended with any of the symptoms of irritation of that structure. The pupil has never thus been made to dilate; and it is hardly reasonable to suppose that any contraction of the blood-vessels takes place, as in all experiments on the lower animals the pupil has dilated *before* the blood-vessels became contracted.

In addition to the continuous current to be passed along the spine, let the individual muscles be faradized. Know your anatomy, and apply your current to each affected muscle, and thus give each exercise at least every other day, so as to check the tendency towards fatty degeneration which always accompanies the disuse of a muscle. Sometimes you will find the muscles to respond more decidedly to a slowly interrupted or to a continuous current. I have found that this current acts most forcibly upon the muscles when, instead of being simply interrupted, the currents are quickly reversed, by means of a pole-changer, at intervals of from one to a few seconds. In this way I have often been able to get a very active response in cases in which the induced current failed entirely, and the direct or continuous current applied in the ordinary manner produced only very slight results.

There is a simple rule in making a choice of the kind of current. Use a continuous or an induced current, as the one or the other produces the most muscular response. The muscles should also be daily rubbed and thoroughly kneaded, and stimulant embrocations may often be employed with advantage; and as soon as your patient can walk, even with crutches, cause him to exercise himself thus daily, but not to such a degree as to produce fatigue.

[January 27, 1873. The case No. 1 (supposed sclerosis) has, without specific treatment, improved in so far that, the tendency to spasmodic movements in his legs having nearly ceased, he is able to sit in an invalid-chair. There is also some apparent gain of power in his legs; but he is unable

to stand, and it is somewhat doubtful whether the apparent gain of power is not merely owing to the subsidence of the motor disturbance.

Case No. 2 (chronic myelitis), under the use of the treatment previously employed, has gained steadily since the date of the lecture (Dec. 5), with the exception of about two weeks, during which the hypodermic use of strychnia was tried with decidedly bad results. He now walks very well with the aid of a single cane, and can walk alone, although with a hesitating gait, which he says is due to weakness of the ankles. Shutting his eyes increases his embarrassment, but does not stop his walking.]

ORIGINAL COMMUNICATIONS.

THE MICROSCOPICAL STUDY OF BLOOD AND EPITHELIUM.

A Communication to the Biological and Microscopical Section of the Academy of Natural Sciences.

BY JAMES TYSON, M.D.,

Lecturer on Microscopy and Urinary Chemistry in the University of Pennsylvania; one of the Attending Physicians to the Philadelphia Hospital, etc.

IT is scarcely possible to study blood satisfactorily with a power of less than 300 to 500 diameters, such as is obtained with an American or English $\frac{1}{4}$-inch or $\frac{1}{5}$-inch object-glass with the B eye-piece being suitable, and it will often happen that a higher power will be of signal advantage. If a drop of the newt's or frog's blood be placed on a glass slide and gently covered with thin glass around the edges of which a little plain oil is applied with a camel-hair brush, a preparation is made which may be studied for hours.

The nucleated oval red blood disks of these animals will be readily detected; though it must be remembered that the nucleus is not at once visible in the blood just removed from the animal. In a few minutes, however, it makes its appearance, and grows slowly more and more distinct, until it becomes the characteristic feature of the red blood disk, and will always serve to detect it. In many disks, in a simple oil preparation the nucleus remains for a long time invisible.

More difficult of detection, as well as more interesting, is the *white blood corpuscle*.

1. A little careful examination, however, will soon enable the beginner to recognize one form of these corpuscles here more easily than in human blood, because of its distinctly round, or, more accurately speaking, *spherical* form, as distinguished from the oval red blood disk. It also remains isolated, having no tendency to aggregate with others of the same kind, or with the much more numerous red disks. The round corpuscle being discovered, this first form is promptly associated with its decidedly *granular* appearance, caused by the presence of numerous highly refractile particles, whence the name *granular blood corpuscle*.

2. In addition to these, *smaller round cells*, paler and less distinctly granular, are found in the blood of the frog at all periods of the year. They correspond in size and character with the nuclei of the red blood disks. Others again of these are quite as large as the granular cells.

Some of these round cells appear as though perforated in one spot by a "punch," an appearance which might on hasty observation be attributed to the presence of a nucleus, but it is more decidedly circular and sharply defined. These are called "vacuoles," and the white corpuscles containing them "*vacuole cells*."

Careful examination of all these forms will reveal changes of shape, but very much less lively than in the next form of corpuscle—

3. *The Amœboid Cell.*—The blood of the cold-blooded animals affords a most convenient field of study for these cells, since no elevation of temperature is ever required to induce them. The locomotive movements associated with the changes of form should also be patiently looked for. A large number of these cells can be demonstrated by placing a drop of newt's or frog's blood on a thin glass cover, which is placed, drop downwards, over a moist cell, made by applying a ring of putty of suitable diameter to a glass slide and placing a drop of water within its circumference. As the process of coagulation proceeds, and the ring of serum extends itself beyond the periphery of the clot, numerous colorless corpuscles of the amœboid kind migrate from the coagulum into the serum, and may be studied in numbers in this situation.

The property possessed by amœboid cells, during the continuation of their locomotive movements, of incorporating in their structure particles of coloring-matter, milk globules, or even, according to Preyer,* particles of the red corpuscles of extravasated blood of amphibia, should be carefully looked for.

4. A fourth form of colorless corpuscle which should be looked for in these bloods, especially in the spring and summer, is the *fusiform* or *linear-prolonged* cell, first described by Von Recklinghausen in Max Schultze's *Archiv*, Band ii. p. 137. They present a colorless cell-substance with a granular oval nucleus. The term "linear-prolonged" (Klein) is the more applicable, since they seldom, if ever, reach the elongated spindle shape we are apt to associate with the term fusiform, but are rather a "prolonged oval."

Although in these animals the amœboid movement is easily studied at ordinary temperatures, the application of heat greatly accelerates it, and makes it more decided. Increased temperature may be obtained by the careful application of the flame of the spirit-lamp to a metallic plate interposed between the stage-plate and the glass slide, or more satisfactorily by means of Stricker's warm stage. If the temperature, however, be raised above 40° C. (104° F.), the movements cease, and, according to Rollett, the cells harden.

EXAMINATION OF HUMAN BLOOD.

The method of examination of human blood is in no way different from that of the blood of the frog or newt. The circular biconcave shape of the red

* *Pflüger's Archiv*, Jahrgang 1868, p. 423.

disks is well known. The "reversal of lights and shadows" due to this biconcavity, the centre of the blood disk acting as a biconcave lens, and the periphery as a double convex, should be thoroughly studied. Careful focussing will show that the centre is bright and the periphery dark when the object-glass is within the focus, and *vice versâ*, as should be the case on optical principles,—the centre dispersing and the periphery collecting the rays, so that in the former case the more remote negative focus is to be focussed, and in the latter the nearer positive.

The *white* blood corpuscle is not so easy of detection in human blood as in that of animals whose red disks are round. The same general characters, however, belong to it. Its pale, faintly granular appearance, ordinarily round shape, indisposition to unite with others in the formation of rouleaux, and especially its *amœboid* movement, characterize it. The latter, even in human blood, in summer weather or moderately warm apartments, does not require heat to induce it; but it is accelerated by such addition.

Attention should be directed to smaller irregular collections of granular matter, apparently fragments, probably derived by fission or otherwise from the larger white blood corpuscles, and which are undoubtedly what have been mistaken by Salisbury and others for vegetable spores, and especially described by Zimmermann* as "elementary corpuscles," under an erroneous interpretation of their real nature.

In all white corpuscles the granules are subject to the well-known "molecular motion" or "Brunonian" movement, which may be studied with a power of 400 and upwards.

Reagents.—In none of the forms of the white blood corpuscle of the frog or mammalia is the nucleus, as a rule, readily detected without the addition of reagents. Individual corpuscles are found in which this structure is differentiated; but it is by no means general.†

After a little practice with the blow-pipe and gas flame, one can make very delicate and convenient capillary tubes dilated at the middle, so that they approach a spindle shape. These are very convenient for receiving and dropping the various reagents in common use, as the indifferent salt solution, distilled water, dilute acetic acid, etc. They are really much more convenient than any apparatus for dropping yet contrived.

1. *The Salt Solution.*—The first reagent with which blood should be studied is the "salt solution," a half per cent. solution of chloride of sodium, which is also called the "indifferent" solution, since it is intended to act indifferently as a substitute for blood serum, the natural menstruum of the blood corpuscle. *Serum* carefully drawn off from coagulated blood, or *aqueous humor* from the organ of vision, answers the same purpose more satisfactorily, the objection to the constant use of either being only in the difficulty of its preservation. The former may be kept in glass tubes for twenty-four hours, or in cool weather longer; but to avoid inaccurate observation the serum should be nearly fresh. None of these solutions should produce any appreciable effect upon the red or white blood corpuscles; the amœboid movements should continue, and the other appearances remain.

2. The next step is *irrigation with distilled water.* This is done by placing a drop of distilled water at one edge of the extemporaneous blood preparation, and at the opposite edge a narrow strip of bibulous paper, which is replaced by fresh strips as it becomes saturated. Thus is established a current from the drop of distilled water to the opposite edge, and the blood corpuscles are thoroughly "irrigated." The effect of this irrigation—the addition of a menstruum of less density than that in which the corpuscles normally float—is the absorption of such fluid by the corpuscle. This imbibition must be attended by a change of form in the red blood corpuscle, which becomes spherical and smooth instead of biconcave. This change of shape is not always uniform, taking place much more rapidly in some corpuscles, and more rapidly in some directions of the same corpuscle, than in others. The spherical form is assumed because it is that shape which furnishes the greatest capacity. Watching the corpuscle thus distended, the color at first is present. Gradually, however, and sometimes rapidly, as the action of the water continues, the color disappears from the spheroids; they become faint, ill defined, almost invisible, and finally disappear altogether.‡

(To be continued.)

* Rust's Magazine, vol. xlvi. p. 171.

† This is of course not due to any effect of the reagent in producing the nucleus, as has been stated by some, although the latter is altered by the former. That the nucleus is always present in the colorless corpuscle is proven by the use of high powers, in which, in consequence of the large angle of aperture, a more delicate differentiation of light and shadow results, and in consequence the nuclei are always visible even without the use of reagents. This advantage of the high powers was pointed out to me several years ago by Dr. Jos. G. Richardson. For the reason assigned, however, which may not be correct, I am alone responsible. I know of none better. The same is true of the nucleus of the oval red disk, of which we have said above that it is not generally visible by ordinary powers, while the disk is floating in the blood-vessels, or immediately after its removal from the body of the frog or newt. With high powers the nucleus, for the reasons above stated, is promptly discernible.

‡ Here again, for the reason assigned in the previous note, the higher powers enable us to discern the framework of the corpuscle for a longer time after the coloring-matter has altogether disappeared; affording another of the comparatively few instances in this department of microscopic inquiry in which high angle of aperture, rather than penetrating power, of which a low angle is a necessary condition, best serves us.

TRANSLATIONS.

VON OPPOLZER'S LECTURES ON DISEASES OF THE ŒSOPHAGUS.

Being the latter portion of the first part of the second volume of Oppolzer's Vorlesungen über specielle Pathologie und Therapie, Erlangen, 1872.

Condensed from the German of Dr. Emil Ritter von Stoffella,

BY DR. J. SOLIS COHEN.

III.

STENOSIS OF THE ŒSOPHAGUS.

THE *origin of stenosis of the œsophagus* may lie outside of the œsophagus, within the œsophagus, or in its parietes. In addition to this, temporary and recurrent constrictions of the œsophagus occur, due to spasmodic contraction. Extraneous œsophageal stenosis

may be due to various tumors, or to morbid hypertrophies of adjacent structures; such as goitre, tumors in the mediastinum, abscess or tumor in the trachea or between the trachea and the œsophagus, dislocation of the hyoid bone, cancer of the lungs or of the pleura, aneurism of the aorta, scrofulous abscess from caries of the vertebræ, etc. Most authors include enlargements of the cervical lymphatic glands among the causes of extraneous stenosis of the œsophagus; but Von Oppolzer has never seen compression of the œsophagus from this cause.

Intra-œsophageal stenosis may result from impacted foreign bodies; constricting cicatrices, the result of previous inflammation or ulceration, whether traumatic or otherwise; purulent accumulations between the layers of the œsophageal parietes; cancer of the œsophagus; fibroids, polypi, diverticula; morbid growths developed upon other structures and hanging in the œsophagus; thickening of the mucous membrane, and hypertrophy of the sub-mucous connective tissue and of the muscular tissues of the œsophagus; the last cause being more infrequent than the others.

The degree of constriction varies very much. In some instances it is so slight as to be barely recognizable; in others it may amount to almost complete, or even complete, closure. The most frequent seats of stricture are at the cardiac, and at the commencement of the thoracic portion of the œsophagus; but it may exist at any other point. The extent of the stricture is usually small, cases in which the constricted portion measures several inches being very rare. The extent of the constriction is usually dependent on its cause.

That portion of the œsophagus above the seat of stricture is usually dilated, and its parietes are often hypertrophied. If the stenosis has existed a long time, this hypertrophy may have undergone fatty degeneration, under which circumstance that portion of the œsophagus will be nothing more than a flaccid sac. Below the stricture, as soon as the narrowing is considerable, atrophy ensues, as a rule, the œsophagus becoming collapsed, its parietes thinned, and its mucous membrane pale and arranged in longitudinal folds.

The disease always progresses slowly and gradually. At first the impediment to deglutition is noticed only in swallowing hard and large morsels; an effort being requisite to force the bolus downwards. But the first bolus once down, those immediately following rarely produce further difficulty in swallowing. Intermissions of entire freedom from dysphagia, or almost entire freedom, occur at this stage, continuing for days at a time. After a time, small morsels only can be swallowed, and these, often, only after repeated efforts, accompanied sometimes by outside pressure with the hands, or the subsequent swallowing of liquids to force the morsel through the stricture. Finally, solid morsels cannot be swallowed at all, and, in extreme cases, not even liquids. The substance swallowed is returned immediately after deglutition, or a few moments subsequently, and is covered with mucus, alone, or mingled with pus, blood, or cancerous particles, according to the nature of the affection. If a sac-like enlargement of the œsophagus has become developed above the stricture, or paresis of the œsophageal muscles has taken place, then sometimes the ingesta will be detained for several hours, and be regurgitated, in a macerated or semi-decomposed condition.

The *auscultatory phenomena* perceived in stenosis are similar in certain respects to those attending œsophagitis, inasmuch as the swelling of inflammation, or the deposits of exudation, likewise constrict the calibre of the œsophagus.

Hamburger recognizes three grades of stenosis. Stenosis in the first or slightest degree, and which may be so moderate as to evade detection in catheterization of the œsophagus, may be diagnosed on auscultation, by the ascent of a bubble of air or a few isolated bubbles through the liquid bolus. Hamburger's explanation of the physical production of this auscultatory phenomenon is as follows:

"The solid or fluid bolus would be firmly and hermetically grasped by the pharynx and œsophagus during the entire duration of the act of swallowing. The column of air which fills the entire space of the œsophagus below the bolus would be forced through the cardiac orifice into the stomach, whence it would escape, without noise, by the same aperture, on the completion of the act of deglutition. As long as this column of air can escape in the usual way with the same rapidity as the bolus descends, swallowing is comfortable. If, however, at some portion of the œsophagus, its lower third, for example, the calibre is encroached upon by swelling of the mucous membrane, then the column of air below the bolus cannot escape with the necessary and customary rapidity; and the result is on the one side a painful distention of the diseased mucous membrane, and on the other a counterpressure, on the part of the column of air, against the descending bolus. If this bolus is liquid, a portion of the compressed air escapes upwards through the fluid. In these cases we hear, on diligent auscultation, the ascent of one or a few isolated air-bubbles through the liquid bolus after it has glided downwards. Many times this regurgitation of air is not complete,—that is to say, the air is not forced into the mouth; but we hear a sound as though one or more ascending bubbles of air assumed a higher position in the œsophagus, to be fully thrust out at a later moment. Inasmuch as this ascent of air-bubbles is not observed, as a rule, in the healthy œsophagus, it can be taken for granted, with every appearance of verity, in all cases where this slight sound caused by the regurgitation of isolated air-bubbles takes place, that there is a commencing obstruction in the œsophagus at about the locality whence the air-bubbles begin to ascend."*

If the stenosis is further advanced, say to a point corresponding to Hamburger's second degree, then the column of air contained in the œsophagus is so compressed by the descending bolus "that it no longer ascends by one or a few isolated bubbles, but by an entire series of bubbles, which stream rapidly upwards through the liquid bolus to establish their state of equilibrium; and there results the so-called *gurgling*, similar to the sound made on emptying a bottle."† In addition to this, there is an alteration in the form of the bolus, which seems shortened in its diameter. These symptoms of the second degree of stenosis are very variable, according to Hamburger, changing in intensity, or even disappearing, to reappear soon afterwards. It is this variability in the auscultatory phenomena that Hamburger designates as characteristic of this stage,—the increased or diminished amount of constriction in which, he believes to be dependent upon diverse factors; such as the amount of mucus at the seat of stricture, the amount of tension of the muscular coat, etc.

In the more advanced grade of stenosis, Hamburger's third grade, "the compression of the air is still more marked; and, as this compressed air suddenly forces its way upwards, it drives the liquid bolus before it (though not always into the mouth) with a markedly audible resounding noise."‡ Hamburger designates this sound as "resonant regurgitation" (*schallendes Regurgitiren*). As an additional auscultatory evidence of this severe grade of œsophageal stenosis, we hear either no sound at all, during deglutition, along the entire track of the œsophagus below the seat of stricture,

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* *Medicin. Jahrbücher der k.k. Gesellschaft der Aerzte in Wien*, xviii. Band, 3 Heft, pp. 158–159.

† Op. cit., p. 159.

‡ Op. cit, p. 160.

or at most a slight leakage-sound. If, as is often the case, a dilatation of the œsophagus exists above its constricted portion, certain other auscultatory evidence is obtained, the details of which, to avoid repetition, will be described in connection with the subject of dilatation of the œsophagus.

The *progress* of stenosis of the œsophagus is essentially chronic; modified, in special cases, by the nature of the cause. As a general rule, stenoses of the œsophagus continue for years, if they are not carcinomatous; inasmuch as hypertrophy of the œsophagus above the constricted portion often takes place, in connection with the ordinary dilatation, to such an extent as to be able to overcome the obstruction to deglutition and force the bolus downwards. If the constriction has become very great, or if a paresis of the œsophagus sets in, so that, from one or the other of these causes, fluid nourishment cannot be swallowed at all, or can only be swallowed in insufficient quantity, then a rapidly progressive marasmus ensues, attended towards the last with the abandonment of every effort at deglutition. In some cases the lung undergoes gangrene as a result of inanition; and occasionally, in addition, retro-pharyngeal or retro-œsophageal abscess is developed.

The *diagnosis* is founded principally upon the results of explorations with the œsophageal sound. As additional evidences, we have, besides those furnished by auscultation, the difficulty in swallowing, and the regurgitation of food. By means of the œsophageal sound we endeavor to learn the seat of stricture, its extent, and the amount of encroachment upon the calibre of the passage. Sometimes, by means of a gutta-percha bougie softened in warm water, we can obtain an impression of the form of the stricture. In those cases where the stricture is high up it is also possible to observe it by means of the œsophagoscope.

Having determined that a stenosis of the œsophagus exists, it is necessary to discover its nature. In general this is not a matter of difficulty; but in special cases, where the constriction is due to aneurism of the aorta, or a mediastinal tumor, or a polypus, or a disease of the larynx, etc., it may call for very careful investigation, not infrequently including examination of the larynx with the laryngoscope. If there is no ostensible local cause for the stenosis, such as a burn, or a scald, or the retention of a foreign body, etc., and if examination of the chest, larynx, trachea, vertebræ, etc., reveal no disease which can account for the constriction perceived by the œsophageal sound, then it is quite likely, especially when the patient is rather advanced in life, that the constriction is cancerous. Positive diagnosis of such a condition is confirmed only upon the appearance of broken-up cancerous matter.

An occasional interchange with spasm of the œsophagus might lead to deception early in the case, but not long; for spasm is usually accompanied with other nervous phenomena, continues only for a short time, and then disappears entirely; while in so-called organic stricture the intermissions are only occasionally complete and occur only in the early stages of the affection, becoming less and less frequent as the disease progresses.

The *prognosis* depends upon the degree of stenosis, and the cause which has given rise to it. If the cause is not incurable, and the constriction moderate, a cure, or at least relief, is to be expected from judicious treatment. Unfortunately, this anticipation can only be occasionally realized, by reason of the nature of the causes.

The *treatment* requires, above everything else, a removal of the cause. Foreign bodies must be forced into the stomach, or be extracted; abscesses which press upon the cervical portion of the œsophagus must be opened; polypi which lie upon the inner wall of the œsophagus, or reach into its interior, must be removed by knife or galvano-cautery; and so on.

If there is simple narrowing of the calibre of the œsophagus from thickening of its walls, a result of pre-existing inflammation, absorption of the products of exudation is to be sought for in the internal administration of iodine. Where this cannot be effected, or where the constriction is due to the formation of cicatrices, then we resort to catheterization and cauterization of the œsophagus; methods from which good results have followed in the hands of Gendrin, Trousseau, Bretonneau, and others. Very often the following method, suggested by Jameson and improved by Svicer, will be found the most desirable: a silken string attached to a metallic ball is drawn through a tube; this is then passed down the œsophagus; the tube is withdrawn, and the metal ball, with the string attached, allowed to remain.

In spite of the many methods of dilatation, death may be imminent if relief is not promptly afforded; then there remains only the choice between the operations of internal œsophagotomy and the formation of a gastric fistula. For the first purpose Dolbeau has devised an instrument composed of a thin metallic sound, with an olive-like extremity, in which two small knife-blades are concealed. The end of the instrument is to be carried beyond the stricture, the knives exposed by means of a spring connection, and the instrument withdrawn. In this way the constricted portion of the œsophagus is incised. Dolbeau achieved brilliant results in this way in two cases of very marked constriction of the œsophagus. Trélat, who had previously performed a similar operation, but by cutting from above downwards, acknowledges the greater safety of Dolbeau's method.

Gastrotomy, and the establishment of a gastric fistula, has been recommended by Sédillot and Nasse,* but, so far as Von Oppolzer's knowledge goes, has not yet been performed on the human subject. This course would not be resorted to under circumstances where the cause is itself fatal; for example, in cases of cancer, or in aneurism of the aorta.

If the stenosis is cancerous, everything must be avoided which might compromise the strength and nutrition of the patient. The internal use of iodine or mercury is unjustifiable. The subcutaneous injection of morphia is to be resorted to to subdue pain. The occasional introduction of the œsophageal sound will often be of great service. If catheterism of the œsophagus is no longer practicable, we resort to the use of nutritious enemata and baths, in order to sustain, as long as possible, the waning strength of the patient; though no special success can be hoped for from these measures apart from the advantage of keeping up nourishment.

The employment of electro-therapeutics holds out no hope of success in these cases, speaking from the present stand-point of science on that subject.

Finally, in all cases of stenosis of the œsophagus, let the cause be what it may, nourishment should be administered as far as possible in the form of broths and other liquids, in the most concentrated forms, and in small and frequently-repeated portions. If the stenosis is so great that the patient can no longer swallow any food, we must attempt as long as possible to introduce a tube and inject the nourishment through it.

PRINCE BISMARCK is said to be suffering from chronic poisoning, effected by means of letters sent to him; and his wife, who always aids him in his correspondence, "is suffering from an unaccountable feebleness." As this item comes around by way of St. Louis, and smacks somewhat of a bygone age, we must regard it with some degree of doubt.

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* Comptes rendus des Séances de l'Acad. d. Sci., tome xxiii. no. 4.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

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EDITORIAL.

THE EX-EMPEROR'S CASE.

IT was naturally to be expected that the medical press would comment freely on a case so full of interest, in many points of view, as that of the late Emperor of the French. It is probable that a man in private life, who in 1870 had been able to command the services of such eminent medical advisers, would have been able also to adopt their counsel. For there can be no doubt whatever of the genuineness in every respect of the report drawn up at that time, and signed by M. Sée, but never, for some unexplained reason, either signed by the other consultants or presented formally to the Empress. Those gentlemen, MM. Nélaton, Ricord, Fauvel, and Corvisart, must have known, as did M. Sée, that the Emperor was, from the mere fact of his having a vesical calculus, unfit for the arduous scenes upon which he was about to enter. And, indeed, it must be considered wonderful that the fatal issue was so long postponed, under the excitements and depressions of his subsequent career.

Why lithotrity was preferred to lithotomy by the eminent men who had charge of the Emperor in his last days, does not exactly appear. It seems as if the physical effect of the latter operation would have been more immediately beneficial, while its moral advantage, in the removal of the most palpable offending cause, would have unquestionably been great. Nor can we think that chloroform was without a hurtful depressing influence.

The statement that the cause of death was "failure of the heart's action" means nothing at all. "Uræmic poisoning" would have been the obviously accurate phrase for the lesion.

We cannot understand why there is no mention, in the report of the post-mortem examination, of the condition of the prostate gland. It is merely stated that "the mucous membrane of the bladder and prostatic urethra exhibited signs of subacute inflammation." An exact note of the existence or non-existence of prostatic enlargement should certainly have been placed upon record.

Sir William Gull's additional expression of opinion as to the relation in point of time between the cystitis and the calculous deposit seems to us, if it has any force at all, to be rather a reflection upon the surgical treatment of the case; since the stone certainly existed in 1870, and a cystitis dating so far back would surely have constituted a serious objection to lithotrity.

In conclusion, we cannot but contrast this case with that of the Prince of Wales. In the former, the patient's public position seemed to compel him to neglect his physical welfare; in the latter, it may be said to have been the source of his safety. In the former, the precautions which any laborer could have observed had to be thrown entirely aside; in the latter, there was an unlimited command of every resource of care and skill.

PHYSICIANS AND DRUGGISTS.

IN November last, as we learn from the *American Journal of Pharmacy*, a communication was addressed to the Maryland College of Pharmacy by a committee of the Medical and Surgical Society of Baltimore, enclosing the following preamble and resolution, which had been adopted by the latter body:

Whereas, We, the physicians of the city of Baltimore, have been grossly injured by the practice of druggists prescribing across the counter, and the indiscriminate renewal of prescriptions without the physician's order; and, whereas, we do not consider the course of study usually pursued by druggists as qualifying them for the practice of medicine; and, whereas, we consider such a course as extremely hazardous to the public and very unjust to the physician; and, whereas, we deem it proper that harmony should exist between the physician and druggist, in order to further the interests of both parties, and at the same time to conduce to the welfare and safety of the patient: therefore be it

Resolved, By the Medical and Surgical Society of Baltimore, that a committee of ten be appointed by this Society to lay our grievances before the Maryland

College of Pharmacy, and request the appointment of a similar committee by that body, to devise means to do away with the acts complained of.

The College of Pharmacy acceded to this request, and the desired conference was held on the 14th of January. The rather meagre account of it given in the *Journal of Pharmacy* says that the charges against the druggists were these:

1. Apothecaries prescribing across the counter.
2. Repeating prescriptions without the order of the prescribing physician.
3. Advertising patent medicines by show-cards, bills, etc.

It is further said that

Prof. J. Faris Moore was the principal speaker for the pharmacists, and met the different charges ably and forcibly. In his argument he stated that the physicians were responsible for many of the existing irregularities, that he had a list of not less than seventeen nostrums, including trade deceptions, which were prescribed by leading physicians of Baltimore, from Winslow's Soothing Syrup to Hubbell's Elixir of Valerianate of Ammonia; and that the prescription business could not, therefore, be conducted without keeping quack nostrums. His remarks on the subject of popular elixirs, like a two-edged sword, cut on both sides.

After a long and friendly discussion, the following resolutions were adopted:

1st. *Resolved*, That, although it is perfectly admissible for druggists to sell any article for which customers may ask, whether orally or by prescription, yet it is highly objectionable for druggists to prescribe for customers under any circumstances, except to meet an emergency.

2d. *Resolved*, That, with the permission of the Societies we represent, this Committee of Conference shall solicit the passage of a law by our State Legislature looking to the regulation of the sale of poisons in this State.

3d. *Resolved*, That the display by druggists of signs calling attention to the sale of patent medicines be considered disreputable.

Another conference was to be held on the first Tuesday in the present month; but we have not as yet seen any report of its results. We have before taken occasion to speak of the matter under discussion, and wish that in our own and other cities even stronger action might be taken towards the establishment of a fair understanding between the medical practitioner and the apothecary. It is certain that there is a vast deal of prescribing, and of recommendation of patent medicines, and of redispensing of old prescriptions, on the part of druggists, to the injury of both physicians and the public. More energetic action, and more decided results, than those of the Baltimore conference, are, however, necessary, if any permanent good is to be accomplished.

We cannot but believe that the appointment of the Examining Boards in this and other States, to insure a better class of pharmacists, is a great step in the right direction, and will make it far easier for the medical profession to bring about a truer relation between themselves and those who should be their aids, but who are now too often their opponents.

CORRESPONDENCE.

COLLECTION OF PHYSICIANS' BILLS.

EDITOR PHILADELPHIA MEDICAL TIMES:

SIR,—It is true that a long-followed custom becomes at last almost, if not entirely, a law; no matter how absurd or inconsistent the custom may happen to be. The old established rule among physicians, of rendering their bills for professional services but semi-annually or annually, has been so long followed as to appear as much a law as though it occupied a place on the statute-book. Notwithstanding that such a custom has been long observed and followed up, it has been the means of great injustice being done to the profession generally, and particularly to those just commencing practice, unless they may be possessed of enough of this world's goods to be able to live without reaping any pecuniary benefit from their professional labors. If they happen to be (as is often the case) in circumstances such as oblige them to depend upon their daily earnings for support, and feel in duty bound to follow the custom marked out for them in regard to the periodical rendering of bills, they soon find but a very narrow margin between them and starvation. There are those whose circumstances will allow their accounts to run for an indefinite length of time, knowing that their bills when rendered will be promptly met by a check drawn upon the well-filled exchequers of their worthy patrons; but they comprise but a small minority of the whole profession. Merchants, mechanics, or other business men have no compunctions of conscience in rendering their monthly statements to physicians, and pressing their payment, when they would no doubt feel indignant were their family physicians to send them their bills monthly, instead of semi-annually or annually, as *they* know the custom to be. Mechanics or laboring-men who receive their wages weekly (as is customary) are as well able to settle their accounts on Saturday night as on December 31, and would in all probability settle a small bill with more ease and grace at the end of the week than a large one at the end of the year. The game has become such a losing one to physicians that some change seems necessary, and we only need a move in the right direction,—a move which will require the more frequent rendition of bills, which will in many instances bring about settlements that would have passed

out of mind if six or twelve months were allowed to elapse between the date of attendance and the rendition of a bill for the same. An initiatory step has been taken in this direction by a number of physicians composing one of the coteries in the northwest part of the city, by passing a resolution that in future all bills sent shall have printed on them the words "*Bills rendered monthly*," and that all bills be thus often rendered unless still in attendance on the patient. There seems to be a determination, on the part of the physicians referred to, to follow out the letter and spirit of the resolution, and we hope other organizations, and the profession generally, may give it a trial, and see if much good may not result therefrom. B.

[We may remark that the above views are in entire accord with an editorial headed "Black Lists," in our issue of December 21, 1872. We believe that every physician would gain by simply adopting the plan of sending monthly bills, without waiting for the formal sanction of his fellows for so doing; and that both he and his employers would fare better in the end.—Ed.]

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

SIXTY-SEVENTH ANNUAL MEETING.

Reported by James S. Bailey, M.D.

FIRST DAY'S PROCEEDINGS.

THE Medical Society of the State of New York met at Albany, February 4, 1873, in the public hall, Perry Building. The meeting was called to order by the President, Dr. C. R. Agnew, of New York. Prayer by the Rev. Dr. Clark, after which the President read his inaugural address.

The President then announced the following committees:

On Credentials, Drs. W. H. Craig, A. L. Saunders, and C. E. Rider.

Business Committee, Drs. Ellsworth Eliot, J. V. Kendall, G. H. Hubbard.

Committee on Arrangements and Receptions, Drs. J. V. P. Quackenbush, W. H. Bailey, Darwin Colvin.

Committee on Medical Ethics, Drs. Thomas Hun, of Albany; E. R. Squibb, of Brooklyn; D. B. St. John Roosa, of New York.

The President then introduced Dr. G. W. Barr, of Titusville, delegate from the Pennsylvania Medical Society.

Dr. Eliot, Chairman of the Business Committee, announced a paper by Dr. George Burr, of Binghamton, to be read by Dr. William C. Wey, of Elmira, Dr. Burr being absent. Subject of paper: "A Case of Occlusion of the Femoral Artery from Fracture of the Femur, followed by Mortification and Amputation." It was referred to the Committee on Publication. The Business Committee also announced a paper by Dr. E. H. Bridges, of Ogdensburg. Subject: "Disease of the Left Ovary resulting in Fatal Hemorrhage." Referred to the Publishing Committee.

The following papers were read by title: "Obituary Notice of Dr. Darius Clark," by Dr. B. F. Sherman; "Hernia," by Dr. J. H. Pooley, of Yonkers; "The Effects of Railroad Travel on the Health of Women," by Dr. Ely Van De Warker; "Idiopathic Peritonitis," by Dr. Joseph Lewi, of Albany; all of which were referred to the Committee on Publication.

Dr. D. B. St. John Roosa, of New York, read a paper entitled "History of the Progress of Otology," which was discussed by Dr. Knapp, of New York. It was referred to the Publishing Committee.

Dr. William B. Alley, of Nunda, read a paper on "The Ultimate Result of Nerve-Injuries in Gunshot Wounds," which was discussed by the members of the Society.

Dr. Roosa offered the following:

Resolved, That the Business Committee be requested to consider papers that may be presented by invited members of the Society, and cause them to be read if thought expedient.

The Society then adjourned until 3 P.M.

AFTERNOON SESSION.

Dr. Agnew, President, in the chair.

Dr. J. W. S. Gouley, of New York, read a paper on "Perineal Lithotomy," which was discussed by Dr. Krackowizer, of New York, and Dr. Hutchison, of Brooklyn.

The President announced the following Committee on Nominations:

First District, Dr. J. C. Hutchison; *Second*, Dr. J. Foster Jenkins; *Third*, Dr. H. B. Whiton; *Fourth*, Dr. Alexander Ayres; *Fifth*, Dr. Alonzo Churchill; *Sixth*, Dr. William C. Wey; *Seventh*, Dr. Caleb Green; *Eighth*, Dr. H. W. Dean.

Dr. Vander Poel read his report in regard to changing the time of meeting of this Society.

On motion of Dr. Eliot, the report was received, and the discussion postponed till the evening session.

Dr. Thomas Addis Emmet read a paper on "Laceration of the Perineum, involving the Sphincter, and Operation for Securing Union of the Muscle." It was referred to the Committee on Publication.

Dr. E. H. Parker remarked upon a case of "Dislocation of the Tarsus from the Astragalus," exhibiting the specimen.

Dr. E. M. Moore, of Rochester, read a paper on "Intra-Capsular Fracture," illustrated by two cases. It was discussed by Drs. Gurdon Buck, Douglas, and A. N. Bell.

Dr. Eliot, from the Business Committee, read the following papers by title, and they were referred to the Publishing Committee:

"Case of Fatty Tumors of the Abdomen," by James S. Bailey, M.D.

"Senile Hypertrophy of the Prostate Gland," by James S. Bailey, M.D.

"Unusual Case of Inflammation of the Urinary Organs," by S. T. Clark, M.D.

On motion, the Society adjourned, to meet at eight in the evening.

EVENING SESSION.

The Society came together at 8 P.M., Dr. B. F. Sherman, Vice-President, in the chair.

Dr. E. R. Squibb, of Brooklyn, Chairman of Committee on Pharmacopœia, read his report. The report, on motion, was accepted.

A paper entitled "Dropsy after Scarlatina," by Dr. George Douglas, was read by title and referred to the Publication Committee.

The report of the committee on changing the time of meeting of the Medical Society of the State of New York was then taken up, in accordance with the recommendation of the Business Committee. Various motions and amendments were submitted, and while the matter was under discussion a motion to adjourn to meet at nine o'clock on Wednesday morning was made, seconded, and unanimously adopted.

MORNING SESSION.

The Society met, agreeably to adjournment, at nine o'clock, Dr. AGNEW, the President, in the chair. No clergyman being present, the President opened the meeting with prayer. The Secretary read the minutes of Tuesday's sessions. On motion, they were adopted.

Dr. OLIVER WHITE, of New York, chairman of the Committee on By-Laws, through the Secretary, made his report. The report was received.

Dr. F. N. OTIS, of New York, read a paper on "Strictures of the Male Urethra, with Results of Operation with the Dilating Urethrotome."

Dr. Gouley, of New York, and Dr. Newman, of New York, discussed the paper.

Dr. ROOSA arose to a question of privilege, making remarks and explanations regarding a paper in the Transactions of last year by Dr. Stephen Rogers, of New York.

Dr. JAMES R. LEAMING, of New York, read a paper on "Plastic Exudation within the Pleura." Referred to the Publishing Committee.

Dr. CHARLES H. PORTER, Treasurer, made his annual report. On motion, it was referred to the following auditing committee, appointed by the chair: Drs. J. V. Cobb, H. Corliss, and Staats.

Dr. ELIOT offered the following:

Resolved, That candidates elected to permanent membership who neglect to pay the fee required by our by-law, for one year from the date of their election, shall forfeit their rights as permanent members.

Adopted.

Dr. A. N. BELL read his report on the "Quarantine Establishment of New York," being a report of the Committee on Hygiene.

Dr. A. B. BURGER, of Saratoga county, presented a specimen of a diseased kidney, with a description of the case. It was referred to the Publishing Committee.

Dr. WILLIAM T. LUSK, of New York, read a paper on the "Pathology of Labor Pains." It was referred to the Publishing Committee.

Dr. GURDON BUCK presented a case of reconstruction of the under lip. Referred.

Dr. COBB, of the committee to whom was referred the Treasurer's report, reported that they had examined the same and found it to be correct.

Dr. LEWIS A. SAYRE read a paper on "Diastasis of Head of Femur, and Formation of Artificial Hip-Joint." Referred to the Publishing Committee.

Dr. J. V. P. QUACKENBUSH read a paper on "Hydrorrhœa."

Dr. E. R. SQUIBB reported from the Committee on Ethics regarding the Niagara County Medical Society. The report was unanimously adopted.

An obituary of Dr. P. Van Olinda, by Dr. A. Van Derveer, was read by title and referred to the Publishing Committee.

On motion, the Society adjourned, to meet at 2.30 P.M.

AFTERNOON SESSION.

The meeting was called to order by the President, Dr. AGNEW. Dr. DOUGLAS made his report as delegate to the Connecticut State Medical Society. Dr. CORLISS reported as delegate to the Maine Medical Association. Dr. NEWMAN reported as delegate to the New Jersey State Medical Society.

Dr. JACOBI, from the Committee on Foundling-Asylums, made his report. Dr. JOEL FOSTER made a minority report on the same. On motion, the majority report was accepted and adopted.

Resolutions in regard to the Committee on Nominations, to the act relative to the medical laws of the State, and to the time of meeting of the Society, were presented and laid on the table.

Dr. B. L. HOVEY read a report of five consecutive cases of Colles' fracture. It was referred to the Publication Committee.

Dr. J. P. GRAY exhibited to the Society micro-photographs of brain-tissue.

Dr. H. KNAPP read a paper on "Hemiopic and Sector-like Defects of the Field of Vision, and their Connection with Diseases of the Heart and Brain." It was referred to the Publishing Committee.

Dr. J. P. PALMER, of Victor, Ontario county, read a paper on "Spotted Fever."

Dr. CORLISS read the "Biography of Dr. B. P. Staats, of Albany."

The following papers were read by title and referred to the Publishing Committee:

"Three Cases of Abscess and Pelvic Peritonitis from Ulceration of the Appendix Vermiformis, relieved by Operation," by Dr. R. B. Bontecou, of Troy; "Complete Dislocation of the Tenth Dorsal Vertebra Forwards," by Dr. Graves, of Steuben county; "On the Use of Atropine in Some Diseases of the Eye," by Dr. Edwin Hutchinson, of Utica—sent as a communication by the Oneida County Medical Society.

Dr. BABCOCK reported for the Censors of the Eastern District that they had examined E. V. Stryker and found him well qualified, and recommended him as a proper person to receive a diploma from this Society.

The Society convened in the Assembly chamber at eight o'clock, to listen to the annual address by the President, Dr. C. R. AGNEW.

THIRD DAY'S PROCEEDINGS—MORNING SESSION.

The Society met at 9.30 A.M., the President, Dr. AGNEW, in the chair.

Prayer was offered by the Rev. Mr. REEVES. The minutes were read and approved.

Dr. VANDER POEL, chairman of the Committee on the President's address, read their report, and after discussion it was accepted and adopted.

Dr. ROBERTSON, of Albany, read a paper entitled "Cases in Practice." Referred to the Committee on Publication.

Dr. J. MARION SIMS read a paper entitled "A Case of Enucleation and Removal of an Intra-Uterine Fibroid Tumor," with instrument for the same. Referred to the Committee on Publication.

Dr. WILLIAM C. WEY read a paper entitled "Some Observations concerning the Hypodermic Injection of Ergot in Uterine Fibroids."

It was discussed by Drs. Sims and Squibb, and by other gentlemen, and then referred to the Committee on Publication.

Dr. J. N. NORTHROP, of Albany, presented a case of congenital loss of the right arm, with remarks upon it.

Dr. Jacobi believed that it was a case of arrested development, the reasons for which he explained in full.

The Business Committee read the following papers by title:

"Penetrating Gun-shot Wounds of Cranium, with Recovery," by A. Van Derveer, M.D.

"Sequelæ of a Case of Purpura Hemorrhagica," by H. S. Crandall, M.D.

Dr. C. DEVOL presented two pathological specimens.

Dr. A. N. BELL offered the following:

Resolved, That the Standing Committee on Hygiene be added to, and hereafter recognized as one of, the Standing Committees under section 111, page 20, of Organization and By-Laws of the Society, and that said committee place itself in immediate correspondence with the county Societies.

Unanimously adopted.

Dr. A. N. BELL offered the following:

Resolved, That the Standing Committee on Hygiene

consist of seven members, one of whom shall be Dr. C. R. Agnew; the balance of the committee to be appointed by the chair.

Adopted.

The President appointed the following the Committee on Hygiene:

Drs. A. N. Bell, S. O. Vander Poel, H. D. Didama, H. W. Dean, John Ordronaux, Stephen Smith, C. R. Agnew.

The Nominating Committee reported through their Secretary, Dr. J. Foster Jenkins, the following nominations to office for the ensuing year:

For President, Dr. E. M. Moore, of Rochester; *Vice-President*, Dr. Francis Burdick, of Johnstown; *Secretary*, Dr. William H. Bailey, of Albany; *Treasurer*, Dr. Charles H. Porter, of Albany.

For Censors: Southern District—Dr. E. R. Squibb, of Brooklyn; Dr. E. H. Parker, of Poughkeepsie; Ellsworth Eliot, of New York.

Eastern District—Dr. John P. Sharer, of Herkimer; Dr. James L. Babcock, of Albany; Dr. G. H. Hubbard, of Lansingburg.

Middle District—Dr. M. M. Bagg, of Utica; Dr. Horace Lathrop, of Cooperstown; Dr. C. G. Bacon, of Fulton.

Western District—Dr. Caleb Green, of Horner; Dr. C. C. Wyckoff, of Buffalo; Dr. D. Colvin, of Clyde.

Dr. JENKINS offered a resolution, as a part of the report of the committee, that no one should be eligible for election to permanent membership until he had been a delegate for three years.

Dr. SQUIBB moved to amend this so as to require delegates to be present at the meetings and serve for three years. After considerable discussion, the resolution was carried as amended, and the report of the committee adopted.

Dr. F. B. A. LEWIS offered the following:

Resolved, That this Society extend their sincere thanks to the officers and members of the Albany County Medical Society for their munificent entertainment and warm reception of last evening.

Carried.

Dr. AGNEW made a few appropriate remarks in conclusion of his service as President.

On motion of Dr. ELIOT, the Society adjourned.

GLEANINGS FROM OUR EXCHANGES.

ELEVATION OF TEMPERATURE AFTER THORACENTESIS (Bourneville: *Le Mouvement Médical*, Dec. 28, 1872).—In the April number of the *Revue Photographique des Hôpitaux* (1872, p. 112) we reported the following two cases relating to the effects of thoracentesis upon the temperature:

Case 1.—L. P., æt. 32. Left pleurisy. Before the operation: Pulse, 84; Respirations, 18; Temp., Réaumur, 38°.4.

1200 grammes (about 3½ pints) of pale-yellow fluid drawn off. After the operation: P., 88; R., 24; T.R., 38°.4.

Case 2.—D., æt. 18. Right pleurisy. Before thoracentesis: P., 104; R., 24; T.R., 38°.9.

Three quarts of clear fluid drawn off. After operation: P., 104; R., 24; T.R., 39°.4.

Comparing these results with those that we observed after two abdominal tappings, we stated, "Though the evacuation of fluid contained within the abdominal cavity did not affect the temperature in a very sensible manner, we observe an elevation of temperature following thoracentesis."

The thermic phenomenon observed by us has lately been confirmed by M. Laboulbène, whose researches, contained in the *Gazette des Hôpitaux*, Dec. 21, we will now quote:

Case 1.—Male. Fluid drawn off clear, pale yellow, and fibrinous; 2605 grammes.

T.R. before thoracentesis, 38°.4; after thoracentesis, 38°.6.

Case 2.—Male. Fluid deep yellow, slightly turbid, fibrinous; 2000 grammes.

T.R. before thoracentesis, 38°.6; after thoracentesis, 38°.9.

Case 3.—Male. Fluid slightly turbid, yellowish, but having a rose tint, slightly bloody; 1050 grammes.

Case 4.—Male. Fluid clear, pale yellow, and fibrinous; 800 grammes.

T.R. before thoracentesis, 38°.4; after thoracentesis, 38°.6.

Case 5.—Male. Fluid perfectly clear, of amber color; 1830 grammes.

T.R. before thoracentesis, 38°.6; after thoracentesis, 38°.8.

Case 6.—Male. Fluid clear, slightly greenish, fibrinous; 1360 grammes.

T.R. before thoracentesis, 38°.6; after thoracentesis, 38°.8.

In the eight preceding cases it is seen that the temperature rises from two to five tenths of a degree after the performance of thoracentesis. It is very probable, as M. Laboulbène observes, that this elevation is due to the more regular and more complete performance of the act of respiration, the lung on the side corresponding to the pleuritic effusion being no longer compressed.

The number of cases is still too small to enable us to say whether this thermic phenomenon is a constant one. Attention being awakened to the point, it will undoubtedly not be long before we understand its significance. It will be equally interesting to see what influence is exerted on the temperature by abdominal tappings, by thoracentesis for hydrothorax, etc.

In regard to hydrothorax we ought here to report a very recent case. It is that of a woman, æt. 55, a subject of albuminuria, who occupies bed No. 20 of ward Saint-Alexandre (service of M. Charcot).

Considerable œdema of the lower extremities, ascites, and hydrothorax occurred. On the 26th of December, before the performance of thoracentesis, we noted—P., 96; R., 24–28; T.R., 37°.3. 280 grammes of clear, pale-yellow fluid were drawn off. Immediately after thoracentesis, we found—P., 88; R., 24–28; T.R., 37°.3; and an hour and a half later, P., 90; R., 24; T.R., 37°.2.

The thermometer remained in place the same length of time (four minutes) on both occasions. Ought we to attribute the absence of the elevation of temperature in this case to the relatively small quantity of liquid drawn off, or to the nature of the disease? We do not know; for to be authorized in forming an opinion on this point, it is indispensable to have a large number of cases.

A NEW ANÆSTHETIC OBTAINED FROM CHLORIDE OF CARBON (MM. Hardy and Dumontpalier: *Am. Journ. of Pharm.*, Feb. 1, 1873; from *Journ. de Pharm. et de Chimie*, Dec. 1872).—Chloride of carbon unites in definite proportions with alcohol, and furnishes a liquid which boils at a fixed temperature and possesses strong anæsthetic properties. To obtain it, 30.8 parts of chloride of carbon are mixed with 4.6 parts of alcohol, the mixture distilled, and the portion collected which boils at 66° C.

It is a colorless, transparent, mobile liquid, of an agreeable odor, and a density of 1.44 at 13° C. and at a pressure of 0.755. Its boiling point, 66° C., is below that of both its constituents, chloride of carbon boiling at 77° and alcohol at 78.5°. It is unalterable in the air,

volatilizes slowly, and burns with difficulty, the flame having a green margin. It is decomposed by water, sulphuric and hydrochloric acids, chloride of carbon being deposited. Aided by a moderate heat, nitric acid attacks it briskly, with the disengagement of red fumes and the separation of chloride of carbon, while the supernatant liquid yields oxalic acid.

Analysis leads to the formula $2CCl_4,C_2H_6O$. Its density, however, which in two experiments was found to be 4.2 and 4.1, does not correspond with the theoretical density required by this formula. Whether it be regarded as a compound or as a mixture, it is curious that it has a fixed boiling point, and all the physical appearances of a body of definite composition. Other analogous cases are known which have not yet been interpreted.

It acts as an anæsthetic, for which purpose its ethereal odor and its low boiling point render its application easy. Experiments were made with a dog of medium size; the mouth was kept closed, the inhalation took place from a sponge through the nostrils so that a certain quantity of air was likewise allowed to enter; fifteen grammes, in three portions, were sufficient. Comparative experiments, made upon the same dog, at intervals of several days, with chloride of carbon and with chloroform, in uniform doses of fifteen grammes, led the authors to the conclusion that the last two liquids act with greater intensity than the new substance, which, however, should be used with the greatest care in experimenting upon human subjects.

Fracture of the Sternum (A. Desprès).—*Le Mouvement Médical* of the 31st of August, 1872, gives the report of the following case, taken from the *Gazette des Hôpitaux*. On the 25th of May, towards midnight, C., 59 years old, a cook by occupation, was attacked, when about to enter his house, by several individuals, thrown down, and beaten. He lost consciousness and remained prostrate for about half an hour; he then succeeded in entering his house, and was obliged to remain in bed for two days following the accident.

Soon after the injury he experienced severe pain in the sternal region and great difficulty in breathing. The pain was increased by motion and by the effort of coughing. When he entered the hospital, under the care of M. Desprès, the following note was made: dyspnœa marked; pressure upon the thorax causes pain; the same is true of motion. The patient coughs with great difficulty. Examination of the chest reveals well-marked ecchymosis in the sternal region, but there is neither deformity nor abnormal mobility; it is impossible to detect any crepitation when the patient is made to cough; his general condition is good; there is nothing particular revealed by auscultation.

On the following day, M. Desprès had a pillow doubled up under the back of the patient, in order to throw the head back and arch the trunk; then, on making pressure over the sternum, crepitation was felt at the middle part of the second piece, and nearly in the centre of the ecchymosis; a certain amount of mobility was also observed.

The case, therefore, was one of transverse fracture of the sternum without displacement.

A diachylon band was applied, and in six days the patient left the hospital, free from pain, excepting on full inspiration.

According to the authorities on the subject, transverse fracture of the sternum is rare; but is it not probable that a certain number, in consequence of incomplete examination, escape observation? This certainly would have happened in the case just related, if M. Desprès had not had recourse to the doubled pillow placed transversely under the back.

MISCELLANY.

The Pharmaceutical Examining Board of Philadelphia have presented their first annual report to the Mayor. They state that they held, from May 20, 1872, to January 1, 1873, fifty meetings for the transaction of business. There were "504 applications for registration as proprietors received, of which number 292 were approved and certificates ordered to be issued. There have been 287 applications from clerks, of whom 250 appeared for examination as to competency and qualification. Certificates as 'Qualified Assistant' were granted to 185 of the applicants, and 65 were rejected as incompetent to be left in charge of a store. Since the passage of the act, 10 persons not graduates in pharmacy who wished to open retail drug-stores have been examined by the Board, five of whom received the necessary certificate of competency, and five were rejected as not possessing the requisite knowledge and qualifications.

"This record shows that of the number applying for the responsible position of proprietor of a store where the most deadly poisons were to be dispensed, fifty per cent. were judged by the Board to be unfit for it, and that only seventy-four per cent. of those who were to be left in charge during the absence of the proprietor were deemed competent for the post. At this date twenty-five proprietors and thirty qualified assistants have not called for or obtained their certificates, although duly notified to do so."

The Board further state that "the receipts from fees have been barely sufficient to meet the expenses, and the Board regrets the inadequacy of the law to provide the means for prosecuting those who violate it. No cases of fraudulent adulteration of medicines have been reported, but the sale of medicines has been continued in some localities by grocers; and copies of the law have been sent to all the retail grocers whose names appear in the business directory, to call their attention to the provisions restricting the sale of poisons and medicinal preparations to registered pharmacists."

Xylol.—We take the following doubtful item from a daily paper:—

"The St. Louis *Democrat* contains the following letter:

"'Baltimore, Md., Jan. 25, 1873.

"'The Superintendent of Police, St. Louis, Mo.:

"'Sir,—I would most respectfully call your attention to the new medical compound known as 'xylol,' which is now being used in this city for purposes of robbing and murder.

"'The mode of application is by mixing it with the feathers in a pillow, and, when the warmth of the head is applied to it, it gives off vapors similar in effect to the fumes of charcoal, and the person using it is found dead in the morning, which gives the monsters who apply the drug ample opportunity to possess themselves of the property of their victims and otherwise dispose of their remains.

"'The drug was tried upon myself here some time

ago by a German Jew, who invited me to stop in his house. I escaped his foul designs, and obtained a knowledge of his intentions and manner of proceeding, by trifling circumstances, the details of which I will not weary you with.

"'But, as I had lately read accounts of several persons being missing in this and other cities, I felt in duty bound to investigate the matter for the benefit of society at large. Consequently, I have devoted my leisure hours to it for the last two years, and have now acquired a perfect knowledge of the drug used, and I lose no time in communicating its name to you, that you may cause the officers under your control to put themselves into communication with the druggists, and keep a system of surveillance over those who purchase it. Hoping that you will also cause a notice of the hidden qualities of the drug to be sent to the police authorities in all the principal cities in the State of Missouri, I remain, sir, yours, very respectfully,

"'M. WALSHE, M.D.'"

AT a meeting of the Faculty of Jefferson Medical College, Philadelphia, January 14, 1873, the following minute was adopted:

"*Whereas*, The Faculty of the Jefferson Medical College of Philadelphia have heard with profound regret of the death of Dr. Warren Stone, of New Orleans, for upwards of a quarter of a century Professor of Surgery in the University of Louisiana, and for a still longer period the leading surgeon in the Southern States: therefore, be it

"*Resolved*, That they desire thus formally to record the sense of their high appreciation of his talents, and of the loss which the profession and the country have sustained in his demise.

"*Resolved*, That a copy of this preamble and resolution be sent by the Dean of this Faculty to the family of the late Professor Stone, with the assurance of their cordial sympathy in their bereavement."

B. HOWARD RAND,
Dean of Faculty.

THE *Nation*, in a late number, discusses the origin of the word *rickets*, as the name of a disease of children. It would seem to have been in popular use long before Dr. Glisson and some other physicians hit upon the somewhat similar "rachitis." The idea that it was derived from a Dr. Ricketts of Newbury, whose treatment of the disease was very effectual, can hardly be entertained for a moment. A much more probable source of it is quoted from an old writer,—namely, that it is an altered form of "wry-gates," *i.e.*, crooked goings, in allusion, of course, to the distorted hobbling of its victims.

THE classes at the Vienna School of Medicine are said to have fallen off greatly, by reason of the strictness of the examinations. One clinical teacher has no students at all to listen to him. Hyrtl has but four hundred, instead of six hundred as formerly; while Billroth and Arlt have respectively but forty, instead of about three hundred and fifty.

HOSPITAL AT JERUSALEM.—We see it stated that there is at Jerusalem a hospital, or rather, we should judge, a dispensary, under the auspices of the English Society. The institution would seem to be actively engaged in doing good, over seven thousand patients attending during the year, and about five thousand being visited at their homes.

UNITED STATES DISPENSATORY.—A new edition of this work is in preparation, and will be issued in a few months. It will be in accordance with the recent changes in the nomenclature, etc. of the Pharmacopœia.

AFTER many ineffectual efforts, dissections have been legalized in Canada, by a law similar, we believe, to that which obtains in several of our States.

DRS. FORDYCE BARKER and T. Gaillard Thomas, of New York, have been elected to honorary fellowship in the Obstetrical Society of London.

DR. DAVID C. SKERRETT, for many years a practitioner in this city, died recently, at a very advanced age.

M. JACQUEMIN, honorary physician-in-chief of Mazas (the Paris prison ?), died recently, at the age of 77.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending February 15, 1873, were 309; 168 adults, and 141 minors. 9 were of bodies brought from the country; making the mortality of the city 300. Among the causes of death were:

Consumption of the Lungs	68
Other Diseases of the Respiratory Organs	55
Diseases of the Circulatory Apparatus	12
Diseases of the Brain and Nervous System	48
Diseases of the Digestive Apparatus	20
Zymotic Diseases (1 from Smallpox)	19
Typhoid Fever	4
Casualties	8
Cancer	4
Debility (including "Inanition" and "Marasmus")	25
Still-born	14
Old Age	13

(The interments reported for the week ending February 17, 1872, were 467.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER.		BAROMETER.
	Max.	Min.	(2 P.M.)
Feb. 9	32.0°	15.0°	30.13 in.
" 10	24.5	11.5	30.44 in.
" 11	44.0	31.5	30.10 in. (Slight rains.)
" 12	37.0	29.0	29.96 in. (Rain and Snow.)
" 13	32.0	22.0	30.21 in. (Snow.)
" 14	34.0	18.5	30.54 in.
" 15	40.5	24.0	30.63 in.

SATURDAY, MARCH 1, 1873.

ORIGINAL COMMUNICATIONS.

THE MICROSCOPICAL STUDY OF BLOOD AND EPITHELIUM.

A Communication to the Biological and Microscopical Section of the Academy of Natural Sciences.

BY JAMES TYSON, M.D.,

Lecturer on Microscopy and Urinary Chemistry in the University of Pennsylvania; one of the Attending Physicians to the Philadelphia Hospital, etc.

(Continued from page 327.)

IN the nucleated oval corpuscles of the frog and newt, the nucleus comes at first more prominently into view, in contrast with the swollen paler periphery. Later, however, it also becomes swollen, smooth, and fainter.

Rollett, in Stricker's Histology,* calls attention to a structure which becomes developed in the elliptical corpuscles after the cautious addition of water. "The still ellipsoidal corpuscle is bounded by a perfectly smooth contour-line, but the place of the nucleus sometimes appears to be occupied by a colored spheroid, whilst in other cases numerous processes radiate from the ball towards the contour-line, becoming pointed peripherally." These forms, according to Kneuttinger, are obtained when fresh frog's blood from which the fibrin has not been removed is mingled with three or four times its volume of water, and an examination is shortly afterwards made of the resulting gelatinous mass.

In the instance of the colorless corpuscle the addition of water is also attended by some imbibition and swelling of the cell, though this effect is much less marked than in the colored disk. The most marked effect is upon the granular matter and nuclei. According to Rollett,† the granular material contracts "around the nucleus," and only remains "connected with the surrounding parts by means of a few anastomosing processes." Whatever the precise changes may be, the granules finally disappear from the periphery and even close up to the nuclei, which become more distinct by contrast with the surrounding apparently empty space.

The nuclei themselves also at first swell, but finally, after considerable intermediate change of form, shrink up and become actually smaller.

3. The action of *watery vapor* is similar, and is easily practised by affixing a putty ring to a glass slide, and placing a drop of water in the chamber thus formed. The object to be examined is attached to the lower surface of the covering-glass, which is then brought down upon the ring of putty and carefully pressed in position. Some care must be taken in graduating the quantity of water, since, if too much be used, the under surface of the thin glass becomes covered with moisture; and if too little be used, the drop becomes dry before it is influenced by the vapor.

4. The action of *dense solutions*, as of neutral salines which do not precipitate the contents of the corpuscle, such as common salt, sulphate of soda, muriate of ammonia, borax, and others, as well as of simple syrup, should be observed. In consequence of their density, a current is established in the opposite direction from that induced by the water as a rarer fluid; hence the peculiar shape of the red disks is rendered more distinct; they become more biconcave, wrinkled, crenated. In the colorless corpuscles, by the action of these solutions, the nuclei also slowly become more distinct.

5. *Dilute acetic acid*, say a twenty per cent. solution, is a reagent much used. Its action on the human blood-corpuscle is similar to that of water, but very much more rapid. Under its influence the non-nucleated red disk swells up, becomes spherical, and finally loses its color, and, as described in the case of water, becomes almost and in some instances quite invisible.

On the colorless corpuscles, likewise, the action of acetic acid is similar to that described as due to the action of water, but more rapid.

On the nucleated oval corpuscle of the frog and newt acetic acid causes a beautiful staining of the nucleus with the coloring-matter of the blood, while a precipitate is apt to occur in the surrounding colorless substance.

6. *Alkalies* in sufficient concentration exert a solvent action upon both the red and the colorless corpuscles, causing their total disappearance, as is to be expected, since albuminous matter is soluble in alkalies.

In very dilute solutions their action, for the same reason, is not unlike that of acetic acid, swelling up the red corpuscles, making them spherical, and removing the coloring-matter, while in the colorless corpuscles the nuclei become more distinctly defined. In the action of the stronger solutions upon the nucleated oval corpuscles of amphibia, the nuclei are the last to disappear.

7. *Boracic acid*, two per cent. solution, has the same action as acetic on the human blood-corpuscle. On the nucleated oval red disks it has a peculiar influence, first investigated by Brücke. The most conspicuous effect—described by Klein as a "coagulation of the hæmoglobin in the nucleus"—consists in an intense coloration of the latter at the expense of the coloring-matter of the remainder of the corpuscle, which becomes pale or completely colorless. The same is said by Brücke to occur on the addition of a two per cent. solution applied to corpuscles dried on a slide, but has not been repeated by us. Moreover, this effect also occurs when, through the action of water, freezing, or electricity, the corpuscles have yielded up their coloring-matter to the serum, from which the coloring-matter seems again to be precipitated about the nucleus.

The boracic acid solution also, as in the case of water, and acetic and other dilute acids, causes the corpuscle to swell up, become ellipsoidal, and even spherical, the nucleus being often eccentrically situated; while Brücke has even seen the corpuscle discharge its nucleus under the action of this acid.

* New Sydenham Society's ed., vol. i. p. 396.
† Op. cit., vol. i. p. 58.

8. *Tannin*, in two per cent. solution, produces a striking effect on red corpuscles, coagulating the hæmoglobin of the human disk into a knob-like mass. In the oval nucleated corpuscle of the frog a similar effect is produced, but the hæmoglobin is also coagulated about the nucleus, as with boracic acid.

9. Striking and beautiful effects are produced by the action of *carbonic acid*, as first demonstrated by Stricker, and may be studied without difficulty by accurately observing the following plan, derived from Dr. Klein in the Brown Institution, London. If Stricker's gas stage is not at hand, one may be extemporized in the following manner. On an ordinary glass slide is placed a ring of putty; along the middle of the slide, extending from just within the putty wall, and perforating it, to a short distance beyond its edge, is attached a piece of fine glass tubing with a lumen of one-eighth to one-fifth of an inch. The tube is made to project beyond the edges of the slide, in order that a piece of rubber tubing of appropriate calibre may be slipped over it and attached to the gas-producing apparatus. At a point, however, between the edge of the slide and the gas-generator a T-shaped tube is introduced, the horizontal portion of which lies in the axis of communication between the wash-bottle and the slide, whilst the leg of the T is directed towards the observer (see Fig. 2 of the Introduction to Stricker's Histology). To this also is attached a long rubber tube, the end of which is placed between the teeth of the observer. The chamber, being constructed, is attached to the gas-generator of Stricker (see also same cut). The latter consists of a flask of dilute sulphuric acid attached by a rubber tube to another containing small fragments of carbonate of lime, which is in turn connected with a wash-bottle, communicating by means of the rubber and glass tubing with the interior of the gas-chamber. It is evident that the generation of gas may be started or discontinued at pleasure by changing the level of the acid-bottle above or below that of the bottle carrying the carbonate of lime.

The apparatus being thus prepared, to—1. *a small quantity of human blood* on a glass slide is added *a relatively large quantity of the indifferent salt solution*. The two are mixed, and a drop of the mixture is placed on a circle of thin glass, which is then placed drop downwards over the putty ring, the chamber placed on the stage, and watched until the corpuscles begin to appear crenated. The end of the tube between the teeth is closed, and a current of carbonic acid is passed into the cell by simply permitting the access of the acid to the carbonate of lime. *The crenated appearance promptly disappears.*

2. Take a *small* quantity of the blood of the frog or newt, and add a relatively *small* quantity of water, so that the disks become swollen but retain their color. Examine this blood, as before, in the gas-chamber. *No nuclei will be visible.* Allow carbonic acid to enter from the apparatus, and the *nuclei reappear.*

3. To a *small* quantity of the newt's or frog's blood add a relatively *larger* quantity of water than in (2), so that the corpuscles are much swollen but the color remains and the nucleus is visible. On the admission of carbonic acid the hæmoglobin *coagulates in the nucleus, coloring it decidedly.* If now by means of a clip on the gum tube the access of CO_2 be cut off, and the observer aspire through the tube in the mouth communicating with the T-shaped tube, the coloring (hæmoglobin) returns to the body of the disk, leaving the nucleus again uncolored.

4. To a small quantity of newt's blood add a *large* quantity of water, so as to remove all the color from the corpuscles. Then permit the access of CO_2, when a *precipitation of granules of paroglobin takes place* in the substance of the corpuscle. Now let the observer cut off the access of CO_2 by the clip, and aspire through the prolonged T-shaped tube to remove the CO_2, and *the homogeneous colorless appearance of the disk is again restored.*

The preparation of *hæmin-crystals* is a much simpler matter than is commonly supposed. A drop of human blood is placed upon a slide and allowed to dry. A little of this is scraped off, placed upon a second slide, a few particles of common salt added, and covered. Two or three drops of glacial acetic acid are then allowed to pass under the thin glass cover. The slide is heated for a few seconds over a spirit-lamp (until a few air-bubbles appear is sufficient), and examined by the microscope. Hæmin-crystals will be found.

EPITHELIUM.

Ciliated epithelium may be obtained for examination by scraping the back part of the tongue or throat of the frog or toad, and should be examined in the salt solution. Thus mounted, the ciliary movement may be studied for hours.

Ciliary motion having ceased, it may be temporarily restored by the addition of any reagent, as water, solution of potash, acetic acid, carbonic acid, etc. This temporary restoration of the movement is, however, simply the result of currents induced by the liquids thus added, as will be plain a few minutes later, when, coming into *actual contact* with the cells, they *promptly cause cessation of the ciliary movement.*

In a preparation thus made, some cells will be seen to be very much more granular than others. Any cylindrical epithelial cell from mucous surfaces may become thus granular by the addition of water, chromic acid, and other reagents; pressure, and, therefore, accident, may induce them. Certain of these cylindrical epithelial cells thus acted upon by water should be further carefully watched; eventually hyaline spherical knobs appear, apparently coming from the anterior edge of the cell. Finally liberated, they leave the cell whence they are derived, with a concavity, whence it is termed a "goblet cell." These goblet cells are considered by some as peculiar mucus-forming cells; but, for the reason just given,—that any epithelial cell from these sources is liable to take this shape,—they are justly denied by Klein to possess any such special function.

If it is desired to preserve epithelium for study, portions of the fresh tissue may be taken from different localities, as the trachea, tongue, intestine, bladder, etc., and washed in a very dilute solution of chromic acid, say one-eighth to one-fourth per cent. They may then be kept for a long time in a solution of one-eighth per cent. strength, for a longer time in a strength of one-tenth per cent., and if it be desired to keep them for a short time only, a strength of one-half per cent. may be used.

1. Columnar epithelial cells including ciliated cells may be obtained from the trachea of the rabbit.

2. Pavement-epithelium from the tongue of the rabbit, and among these "ragged cells," or "riff cells" (Riefezelle, Stachelzelle).

3. Pavement and club-shaped cells (intermediate forms) from the urinary bladder of the rabbit. The excavated under surface of the former, into which the latter fit by their upper convex extremities, should be noted.

4. Columnar epithelium from the stomach of the rabbit.

5. Columnar epithelium on the villi of the small intestine of the rabbit; the pale striated rim on the free border should be looked for. These striæ, which can only be satisfactorily studied with the higher powers particularly of the immersion system, are generally acknowledged by histologists to be due to delicate porous canals which perforate the seam.

They are best shown in *fresh* preparations from the intestine of cats and dogs, mounted in serum.

6. The epithelium from the fresh intestine of the rabbit should also be examined after feeding the animal, with a view of detecting oil-globules in transit through it.

ANILINE-POISONING FROM A CRIMSON NECK-HANDKERCHIEF.

REPORTED BY JOSEPH G. RICHARDSON, M.D.,

Lecturer on Morbid Anatomy in the University of Pennsylvania; Physician in the Out-Patient Department of the Pennsylvania Hospital, etc.

WITHIN the last few years a number of communications have appeared in one or more of the British medical periodicals in reference to the cutaneous irritation set up by articles of clothing, such as socks, gloves, shirts, etc., colored with aniline, and some of its analogues among the brilliant dyes indirectly obtained from the destructive distillation of coal; but, so far as I am aware, no instances of like nature have hitherto been reported in any of our own medical journals.

Such being the fact, I presume many readers will feel interested in the observations made abroad upon the subject, which are concisely summed up by the editors of the *Medical Times and Gazette* (London, August 7, 1869) in the following remarks:

"The facts known about it are few and striking, but by no means clear. There is no doubt that some persons who have worn silk socks dyed with sundry brilliant colors have suffered from severe irritation of the skin, peculiar redness, vesication, intense pain, and general illness. The affected patches of skin have corresponded exactly with the colored portions of the socks; and of all the colors red and scarlet have proved the most severe in their effects. The socks have been washed and the color has been washed out, but still, we are assured, the irritating qualities have remained."

Again, in commenting upon the report of a committee appointed to investigate the subject, the editors observe, "One gentleman, who was unable to attend to his business (on account of suffering from colored socks), and was absent from home and under medical care for more than six months, is said to have forwarded to the committee a list of eight physicians of eminence whom he consulted, and of whom three pronounced the cause of his illness to be 'poverty of blood;' three called it secondary 'enthetic' disease, spite of the patient's denial that he had ever had primary disease of the kind; one called it indigestion; and one said it was a 'skin affection,' which last diagnosis was indisputable. We need not be too sensitive to the ridicule attaching to such diversities of judgment, but we may take the hint that new causes ought to be suspected and looked for when we meet with new and unusual symptoms."

This description of the facts in aniline-poisoning as noted by English physicians closely accords with the phenomena met with in the case I am about to detail:

J. B., a farmer, 74 years old, residing near Darby, in the vicinity of Philadelphia, came under my care in the out-patient department of the Pennsylvania Hospital, January 27, 1873. His neck, face, and head were much swollen, and displayed an erysipelatous redness, which was accompanied with intense smarting and burning pain, so severe that for more than a month he had been unable (according to his own account) to sleep at night. On investigation I found that the attack had first made its appearance about seven weeks before, in the form of an eruption of "little water blisters" upon the sides of the neck and on the chin below the angles of the mouth, from whence it had spread to the extent above mentioned. Soon after the disorder commenced, he had consulted a neighboring physician, who inquired when he had been in the woods to get poisoned, and had prescribed for him a wash of sugar of lead, from which, however, he derived no benefit. Finding the patient had never been subject to poisoning from Rhus toxicodendron before, and deeming the starting-point of this disease an unusual one for such a malady, I was led to doubt the accuracy of his medical adviser's diagnosis, and on further questioning I learned that two weeks before the affection first appeared he had commenced wearing a silk neck-handkerchief, newly dyed of a crimson color, which I at once requested that he would bring down to the hospital and show me on his next visit. On examining the handkerchief I immediately recognized the brilliant hue of red aniline with which most microscopists are so familiar; but, in order to determine the point beyond all doubt, I tested a small portion of the stuff as recommended by M. Tardieu in his memoir upon the subject, namely, by first boiling the suspected tissue in strong alcohol, when the spirit became of a bright-red color, whilst the fabric was partly bleached in the process, and afterwards by adding ammonia to the tincture thus prepared, which, by rapidly decolorizing the fluid, demonstrated that the cause of all this mischief was aniline, and not coralline.

The treatment consisted in the liberal application, upon soft linen rags, of slippery elm mucilage (which he subsequently stated was the first thing that gave him any relief), and in the administration of a mixture composed of

Morphiæ acet., gr. j;
Spt. ether. nit., f℥ss;
Potass. bromid., ℥j;
Aq. menth. pip., f℥iijss;
Syr. zingiberis, f℥ij,

of which a tablespoonful was given every four hours, as required, to allay the pain, fever, and restlessness at night. Under these remedies the disease rapidly yielded, and on the 10th of February he very gratefully reported himself cured.

The lessons taught by this case seem to be—in the first place, that, in addition to the aniline-poisoning heretofore recorded as occurring upon the hands, feet, and thorax, we are liable to meet with examples of cervical irritation caused by wearing neck-handkerchiefs colored scarlet with this noxious dye; and secondly, that our patients who are supposed to be suffering from the effects of "poison ivy" or "poison sumach" must be carefully questioned not only concerning the ordinary eruptive diseases, but also in regard to possible contact of their integument with fabrics impregnated with the aniline colors, if we wish to avoid mortifying blunders in diagnosis and in treatment.

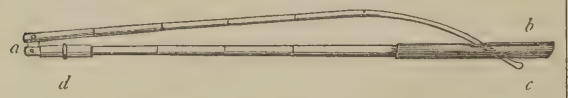
No. 1620 Chestnut Street, February 10, 1873.

A COMPACT UTERINE SOUND.

BY HENRY E. WOODBURY, M.D.

I DESIRE to bring before the profession my modification of the present uterine sound, which renders it far more compact and convenient for carrying in the pocket. My attention was directed to this subject from the fact that, on two different occasions, I lost the long sound from my pocket in going to or coming from my patient's house.

The ordinary long sound is a very formidable-looking instrument to the patient, and liable to be lost by slipping out of the pocket. Both of these objections to it are obviated by my improvement, I think, and the cost of the instrument is not much enhanced.



I have it made with a joint (*a*), hinge-like in character, so that it may be closed after the manner of a pocket-knife, and its length diminished just one-half. When it is folded, the probe-pointed extremity (*c*) is passed through an opening in the handle (*b*), made for the purpose, and thus retained *in situ*. The slide should be about seven-eighths of an inch in order to fix the joint.

To prepare the instrument for use, we disengage the point (*c*) from the opening (*b*), and, straightening the sound, keep it in position by means of the slide (*d*).

I think that this brief description will commend my improved sound to the profession as a far more compact and convenient instrument than that in common use. The ordinary sound may be altered to this form, by introducing the joint and slide, at a small expense.

Charles Fisher, surgical instrument maker, 424 Seventh Street, Washington, D.C., manufactures the improved sound.

Washington, D.C., November 15, 1872.

TRANSLATIONS.

VON OPPOLZER'S LECTURES ON DISEASES OF THE ŒSOPHAGUS.

Being the latter portion of the first part of the second volume of Oppolzer's Vorlesungen über specielle Pathologie und Therapie, Erlangen, 1872.

Condensed from the German of Dr. Emil Ritter von Stoffella,

BY DR. J. SOLIS COHEN.

IV.

DILATATION OF THE ŒSOPHAGUS.

DILATATION of the œsophagus may involve the entire length of the œsophagus, or its greater portion,—*complete or general dilatation;* or it may be partial, confined to a more or less short section, in which case the œsophagus may be dilated in its entire circumference,—*sacculated dilatation;* or one wall only may be dilated, producing a transformation into a circumscribed lateral pouch,—the so-called *diverticulum*. In cases of the latter kind, as a rule, all the coats of the œsophagus are not involved in the dilatation, the pouch consisting of the mucous membrane pushed hernia-like between the muscular fibres, and covered with the external connective-tissue envelopes of the œsophagus.

General and complete dilatation of the œsophagus is usually due to traumatic causes, as a fall or blow upon the back or the breast; or to constriction of the cardiac orifice of the stomach; or to a protracted œsophagitis. Oppolzer has seen it follow the treatment of gout by the copious drinking of warm water. In some cases no ostensible cause can be determined.

Sacculated dilatation of the œsophagus is usually due to constriction of the tube; sometimes to the retention of a foreign body. Occasionally it is observed as a congenital anomaly.

Pouch-like dilatation of the œsophagus, or a *diverticulum*, may be produced by the detention of a foreign body in the folds of the mucous membrane, and the subsequent pressure of this body more and more deeply into the walls of the œsophagus by the food in swallowing, so that it spreads the bundles of muscular fibres asunder and forces the mucous membrane through them in a sort of hernia-like protrusion. Sometimes the diverticulum is produced by the drawing out of the mucous membrane during the shrinking of some previously enlarged tracheal or bronchial glands which have contracted adhesions to the parietes of the œsophagus. In such cases, Rokitansky says, "the glands draw the wall of the œsophagus out into a sort of funnel, from the point of which the muscular investment gradually retreats, so that finally a diverticulum of the mucous membrane is formed, the originally wide orifice of which becomes constricted in consequence of this production of a fleshy margin." Accidents, also, sometimes give origin to the formation of a diverticulum, in the rupture

of some bundles of the œsophageal muscles by a heavy blow, or in their fatty degeneration as a sequel of paralysis following exudation into their substance.

Complete dilatation of the œsophagus, in rare instances, has reached a size sufficient to admit the passage of a man's arm in the interior. General dilatation of the œsophagus is usually connected with muscular hypertrophy, rarely with atrophy of the walls. In many instances there are ulcerations, and even eschars, on the surface of the mucous membrane.

Sacculated dilatation is also usually associated with hypertrophy of the muscular coat. It gradually diminishes in an upward direction, so that a vertical sac is produced, the lower orifice of which is the smaller. If the sacculated dilatation is not due to stenosis, its seat will usually be immediately above the diaphragm.

The diverticulum of the œsophagus is usually formed in the neighborhood of the inferior constrictor muscles of the pharynx, or else in the region of the bifurcation of the trachea, and its position is between the œsophagus and the vertebral column. It communicates with the œsophagus by a round or slit-shaped orifice of variable size. In some cases it draws the œsophagus out of the normal line of its axis, and forms a sort of blind continuation of the gullet, into which the food passes instead of continuing down the tube; so that the patient may become starved to death by this interception of the food on its way to the stomach.

Sometimes several of these dilatations exist, and, if they acquire considerable size, they may, according to Rokitansky, become imbedded in the lungs. Finally, in some instances, a vulnerating body, as a splinter of bone, may become confined in the diverticulum and be productive of inflammation, ulceration, and mortification; the contents of the diverticulum becoming discharged either into the adjacent and adherent lung-tissue, into one of the bronchi, or into the pleural sac; developing pneumonitis, or pleuritis, or mediastinitis, with termination in suppuration, etc.

The *symptoms* of moderate dilatation of the œsophagus, apart from auscultatory phenomena, have nothing marked about them; and, as the condition is usually dependent upon pre-existing stenosis, the symptoms of constriction are those to which attention will be directed in the first instance. If the upper portion of the œsophagus is intact, there will be less difficulty of deglutition than otherwise, because the muscular fibres in this portion of the organ are under the control of the will, and voluntary efforts can therefore still be made to impel the bolus through the dilated portion below.

If there is complete dilatation, there will be no complaint of dysphagia as long as the contractile power of the œsophageal muscles is unimpaired; but if the dilatation leads to paralysis, then deglutition will become more and more difficult, and the dysphagia will finally culminate in utter inability to swallow. If the œsophageal sound be introduced in such a case, it will not strike against any obstacle; on the contrary, in well-marked cases it can be moved about in all directions with great freedom.

Sacculated dilatation of the œsophagus being almost always due to stricture, symptoms of constriction are its most prominent indications. Food remains longer in the œsophagus, and in greater quantity, before regurgitation takes place, than in cases where there is stricture without dilatation. This retention of food, and its partial decomposition, impart a foul odor to the breath. If the dilatation is high up and of considerable dimensions, it may produce a tumor in the neck, visible externally, which enlarges after the entrance of food and drink, and subsides upon the discharge of its contents. If the dilatation exist behind the trachea, it may produce dyspnœa by its pressure; and it may be so situated as to exert compression upon the cervical vessels and thus provoke congestion of the lungs, which, as in Hannay's case,* may suddenly terminate the patient's life by suffocation.

The *auscultatory evidences of dilatation* are, according to Hamburger's researches, as follows. If the œsophagus is only moderately dilated, it is observed that the bolus does not assume the pointed form at its lower portion, but is rounded and broadened off, so that it is rather of the form of an inverted funnel. "If the loss of energy of the fibres increases, the bolus no longer retains its inverted-funnel-shaped form, but is elongated into a trickling stream coursing down the œsophagus. The force of this stream depends upon the condition of the upper third of the œsophagus. If this is healthy, the stream is pretty thick, and it is driven through the diseased lower portion with tolerable rapidity. If the muscular energy in the upper third is impaired, then a slow thread-like trickling is heard. If there are circumscribed but circular enlargements, a sprinkling of the fluid bolus, as it strikes the resistances, is distinctly audible along their entire length, similar to the deflection of rain driven by the wind. By the aid of this sound one can judge of the various dimensions of these dilatations."

The symptoms produced by a diverticulum are, in many respects, similar to those attending the sacculated dilatation. If it exists in the upper part of the neck, and is of considerable size, it may be recognized externally, as a tumor, soft to the touch, reducible to a certain extent by pressure, enlarging after a meal, and subsiding after the subsequent regurgitation. There is also a foul breath, much more offensive than in the other variety, because regurgitation, as a rule, does not take place until twenty-four hours, or longer, after the entrance of food. It may likewise give rise by compression to attacks of dyspnœa, and other disturbances of respiration and circulation. If it have acquired considerable bulk, it may even press laterally against the œsophagus itself to such an extent as to compress its walls to that degree as finally to prevent the passage of food into the stomach. In such cases there is less complaint of dysphagia than there had been previously, because the diverticulum can now contain a greater amount of food. In spite of this relief to the dysphagia, inanition progresses rapidly, and the patient soon dies of marasmus. If the diverticulum is small, and does not enlarge, the life of the affected individual will remain unthreatened, from this cause, for years.

Hamburger had had no opportunity of observing the auscultatory phenomena accompanying a diverticulum up to the time his researches were published; but he expressed the opinion that important aids to diagnosis could be furnished in this way, by noticing the direction taken by the swallowed bolus, and the gurgling which would accompany the entrance of fluid into the diverticulum.

The *diagnosis* of slight degrees of complete dilatation of the œsophagus must rest entirely on auscultation; while, if of considerable dimensions, the introduction of bougies would confirm the diagnosis, for reasons already mentioned.

The diagnosis of sacculated dilatation, in the presence of a stricture, would not be made until the arrival of the period at which food is regurgitated; in addition to which, on ausculting the act of deglutition during the swallowing of a fluid bolus, we should recognize a sprinkling at a circumscribed point. If high up, and

* *Edinburgh Medical and Surgical Journal*, July, 1833.

large, there might be a tumor visible externally. The œsophageal sound is only very seldom of diagnostic value in this form of dilatation, especially when it exists low down.

The diagnosis of a diverticulum, when of moderate size, rests upon the changeable increasing and diminishing pressure on one side of the throat or the other occurring between each meal and its regurgitation. There may also be a tumor externally. If the diverticulum is small or situated low down, there are no evidences of tumor in the neck; there is, however, a characteristic dysphagia which permits the patient to swallow easily and frequently, but is accompanied by a retention of the food at a certain point, and a tendency to rumination; though too much weight must not be given to the rumination, as it may occur under other circumstances. The explorative use of bougies is very important. If the end of the instrument passes through a more or less contracted opening into a cavity which admits of no farther progress of the instrument, there is no doubt as to the diagnosis of diverticulum of the œsophagus. If the sound passes directly into the stomach without meeting with any obstruction, it is no evidence, however, that a diverticulum does not exist, for the instrument may have slipped past the entrance of the diverticulum without engaging in it.

A *differential diagnosis* is necessary to decide between the existence of a sacculated dilatation or a diverticulum, and between either of these conditions and a peri-œsophageal abscess. An error of the latter nature could only occur when the abscess was in the upper portion of the œsophagus, inasmuch as a superficial examination of the tumor in the neck which would be produced by the development of an abscess might lead to its being mistaken for the tumor of a dilatation. Pressure upon the tumor would force pus into the mouth in case of abscess, and mucus and masticated food in case of dilatation. Sacculated dilatations usually follow stricture, and are generally formed immediately above its seat. Therefore a sound, after passing through the dilated portion of the œsophagus, would encounter constriction, which would not be the case with a diverticulum; while, as Hamburger has shown, auscultation would reveal the "sprinkling" within the dilatation on deglutition, an occurrence that cannot take place with a diverticulum.

The *prognosis* depends on the cause of the dilatation and the extent of its development. If the cause is not in itself fatal, and the dilatation is slight and stationary, the life of the patient is in no danger, whether the dilatation be complete, sacculated, or pouch-like. In addition to this, much will depend on the condition of the œsophageal muscles and the position of the dilatation.

TREATMENT.

If the cause of the disease can be remedied, efforts for the removal of the cause would form the most important element in the treatment. In case of a complete dilatation occurring during the course of a chronic œsophagitis, we must endeavor to cure the existing inflammation; or in case of a sacciform dilatation following stenosis, we should treat the stenosis; and so on. Unfortunately, we are rarely able to follow out the causal indications, and must content ourselves with freeing the œsophagus, by the introduction of the sound, whenever that tube is clogged up with ingesta; and nourishing the patient by artificial means, as by the stomach-tube or enemata, when the dysphagia is complete. If a diverticulum exist, it is advisable to administer nourishment through the stomach-tube, and thus prevent accumulation of food in the sac, without waiting until utter inability to force food voluntarily into the stomach has occurred; but it is a proceeding requiring so much resignation on the part of the patient that it is very seldom submitted to, though, by avoiding the enlargement of the dilatation by retention of food in it, it offers the best chance of a cure.

Any direct means of combating the dilatation, at least of the complete and sacciform variety, does not exist in the present state of our scientific knowledge; and the most that we can hope for is to be expected from the use of strychnia and electricity, from the resort to which in cases of complete dilatation of traumatic origin, some direct remedial influence, trifling though it may be, can be reasonably expected.

The diverticulum will probably be rendered amenable to topical measures before the other varieties, because it is usually met with in the cervical portion of the œsophagus, and is therefore more accessible to manipulation. Hamburger has suggested an operative procedure for its removal, without, however, ignoring the danger of pyæmia and descent of pus into the mediastinum during the healing process; but, taking all the attendant difficulties of the operation itself, and the administration of nourishment afterwards, into consideration, Von Oppolzer is of the opinion that it would require no ordinary heroism to incur the responsibility of such an operation.

On Version by the Feet in Cases of Contracted Pelvis (*Centralblatt für die Med. Wiss.*, Dec. 21, 1872; from *Archiv für Gynækol.*, 1872, iv. Heft 2).—S. Borinski gives a résumé of the labors in three hundred and sixty-seven cases of contracted pelvis, observed in the gynæcological clinic at Breslau from August, 1865, to February, 1872, and seeks, by comparing the results of turning with those of all other modes of proceeding, to throw some light on the question of the propriety of that course. The experience at Breslau is against it, since of ninety-three children delivered by version only thirty-four lived; thirty-nine died during or soon after birth (twenty were already dead), nine of whom were killed by perforation; while of three hundred and twenty-two children born by the head only ninety-four died. According to the tables appended, which registered only forty-five cases of version, the relation is the same, the head-presentations having 29.2 per cent., the versions 53.3 per cent. of the dead children. Of the mothers, fifteen died after version, but only three, seemingly, in consequence of the operation. From these statistics the author takes ground against turning as a prophylactic measure, and would limit its employment to urgent and complicated cases. Only in very extraordinary anterior or posterior vertex-positions should it be resorted to. In two cases of asymmetrical pelvis the head passed the shorter diameter easily after turning, while previously it had been arrested in the longer. In repeated deliveries in the same women, changing to head or pelvic presentations, the results were quite contradictory. In prolapse of the cord or of a hand the reposition was generally accomplished with success, only failing once, and even face-presentations came right; while in seven cases of the latter kind in which version was resorted to, five children died.

Extracts in Powder (*Boston Medical and Surgical Journal*).—It is sometimes very desirable to administer the solid extracts (say *extract of hyoscyamus*) in the form of a powder.

All such extracts may be reduced to fine powder by patiently rubbing them (say two or more hours) in a mortar with an equal quantity, by weight, of calcined magnesia.

Extract of gentian yields the slowest to this manipulation.

PHILADELPHIA

MEDICAL TIMES.

A WEEKLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, MARCH 1, 1873.

EDITORIAL.

NOT BIGOTRY.

SOME weeks since, we quoted some remarks made by Dr. Cox, formerly a Vice-President of the American Medical Association, at a reception given to the American Institute of Homœopathy in Washington, and expressed the hope that the former body would, at the earliest opportunity, cause his name to be erased from its list of members. The *New York Medical Review*, a journal claiming to "support the fundamental principles of rational eclecticism," thinks that what we said shows "the spirit of bigotry and proscription which actuates and controls most of the institutions and journals of the old or allopathic school." It then goes on to accuse us of denying to homœopathic practitioners any professional rights, and says, "What then is the unpardonable sin that contaminates even by association with them? Why, simply, difference of opinion in therapeutics: that is all. The homœopath thinks an infinitesimal dose of mercury, arsenic, or charcoal sufficient, while the allopath holds to their use in heroic doses."

Perhaps it is hardly worth while to take any notice of statements so easily disproved; and yet we feel as if silence would be construed into admission of the charges. We must say, then, once for all, that no honorable physician would think of treating unprofessionally a man claiming to practise on the homœopathic system, although consultation with him is out of the question. This latter is impossible, since in the first place there is no common ground for them to occupy in discussing any case, and secondly, the Code of Ethics justly says that "no one can be considered as a regular practitioner or a fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry." When Dr. C. C. Cox rejoiced to find himself at a meeting of homœopathic doctors, he trampled under foot this just principle,—one of the fundamental laws of the Association of which he had been an officer,—and knowingly violated one of the conditions of his membership in that body. He must have been well aware that he was the guest of those who spared no occasion to vilify and misrepresent the principles and practice of scientific medicine,—of those who in the same breath accuse "allopaths" of bleeding, blistering, and purging patients to death, and complain that they themselves are "ostracized."

The American Medical Association owes it to itself to expel this traitorous member, whose defenders are eclectics,—a fact which strengthens the case against him.

SHALL WE HAVE A CHANGE?

WITHIN three months the annual meeting of the American Medical Association will be held; and as yet we hear no note of preparation towards a change which shall make that body more truly representative of the profession at large in this country, and give it a more authoritative position in regard to the various matters calling for its control. We would again urge the importance—the necessity—of such a change. As long ago as last September, we brought forward the plan proposed by the *Boston Medical and Surgical Journal*, which then, as now, seemed to us to offer great advantages. And we now repeat our appeal to Drs. Gross, Logan, Yandell, Sayre, Davis, and Baldwin, to take the initiative in advocating, before the Association, either this plan or some modification of it. As matters stand at present, there is not a single one of the legitimate objects of such a convention which is accomplished. No other body of men in the United States would be satisfied with such "representation." Let us either have a properly constituted Congress, endued with some powers, and with machinery suitable for their exercise, or let us dispense with the whole concern, abandon all attempt at professional union, and fall behind our age.

A NEW LYING-IN HOSPITAL.

MANY of our readers may be unaware of the existence, in this city, of a State Hospital for Women and Infants, for the benefit of patients in the middle and poorer classes, and of those who would otherwise be compelled to seek refuge in the obstetrical wards of the Almshouse. As yet, this charity is in its embryo stage, having but fifteen beds at its disposal; but it is one which must strongly appeal to every generous heart, and which we believe will meet with abundant and substantial support from the community.

An excellent organization of governors and medical staff has been effected, and a beginning made at No. 1718 Filbert Street. Subscriptions and donations may be sent to Dr. E. L. Duer, Treasurer, 1704 Arch Street, who will also give any desired information as to the plan, etc., of the institution.

CORRESPONDENCE.

THE MEDICAL SCHOOL AT VIENNA.

To the Editor of the Philadelphia Medical Times:

FOREIGN medical schools present strong attractions to the graduate of an American college, from the prominence given in them to clinical teaching; and that university which affords the most extended privileges in this direction will always be visited by the greatest number of strangers.

Vienna possesses peculiar facilities for the practical study of disease, so that its advantages are still predominant even over the lustre of such a name as Virchow's. The seat of the lectures of the University of Vienna is in the General Hospital of that city, situated in the Alservorstadt. It is located on a large square-shaped piece of ground, around and through which the hospital buildings are erected, enclosing in this manner a number of court-yards, or "höfe," that are ornamented with fountains, trees, and flowers. They number perhaps twelve.

The lecture-room of each Professor is situated in the midst of the wards devoted to his peculiar province, which is important in providing for the thorough illustration of his lectures. The courses of instruction given by the Professors, however, less resemble lectures than collections of desultory remarks on the cases that happen to be before them. Professor Sigmund, indeed, delivers his lectures in one of his wards that is filled with patients.

Arrangements are made so that every student may acquire a practical knowledge of parturition in its normal progress and of the accidents to which it is liable. In Prof. Carl Braun's wards there are four thousand births annually. When labor commences, the patient is transferred to the parturient ward, where twelve students, who are changed daily, are in attendance. They are under the supervision of three midwives. If the student have taken five weeks' practical instruction with Prof. Braun's first assistant, he is privileged to perform any of the operations that a difficult or impossible labor may require.

Prof. Meynert delivers an excellent course of lectures on nervous diseases and mental disorders at the Asylum for the Insane, a short distance from the General Hospital. He is more systematic in his course than most of the other Professors, rather illustrating his lectures by cases than attaching remarks in a hap-hazard way to the cases that are at hand.

Prof. Hebra's wards form a complete museum of skin-diseases.

A peculiarity of this university is the number of its private courses. They are given, generally, by the assistants to the Professors. These private teachers, or "Docenten," as they are called, form an important part of the university, and they have their names and other information concerning them embodied in the official catalogue issued at the commencement of every semester. Of these there are two yearly. One commences about the middle of April and ends in the early part of July, the other commences in October and ends in the following February. The energetic private courses continue, however, during the vacations. A private course lasts from four to six weeks, and, after terminating, in most cases immediately recommences. The subjects treated of embrace every branch of medical knowledge. The following list has been deeply impressed on my mind by an earnest study of the hieroglyphs on the bulletin-board at the entrance of the hospital: laryngoscopy and rhinoscopy, the use of the ophthalmoscope, diseases of the eye, diseases of the ear, nervous diseases, medical electricity, the use of the microscope, skin-diseases, percussion and auscultation, diseases of children, general pathology, surgical operations, urinary sediments chemically and microscopically considered. All of these subjects, and others, are exemplified with a copiousness of illustration to which we are strangers. By the concentration within the walls of the same building, of all these subjects of information, time may be economized, so that every hour in the day, from seven in the morning until seven in the evening, may be profitably employed.

In general pathology, however, this school is far behind that of Berlin. Prof. Rokitansky, who still holds this chair, has such an indistinct delivery that it is impossible for foreigners to follow him.

The opportunity that exists in Berlin, for combining Prof. Virchow's theoretical instruction with the practical study of morbid specimens, confers great advantages on this university in the teaching of general pathology.

For the study of the specialties, or for acquiring a practical acquaintance with general medicine, the University of Vienna, from its numerous private courses and its convenience of location, affords unequalled advantages.

In addition to the above-mentioned opportunities for

study, students are allowed to make the morning and evening visits with the Professors, if they choose. Few, however, avail themselves of this privilege; for without it enough cases are seen.

Students must, perforce, conform to the Vienna mode of life. Every one dines and sups at a restaurant. Breakfast is generally taken in one's own room. This meal, contrary to the American custom, is a very light one, consisting, for a well-regulated "Wiener," of a "mélange," a mixture of coffee and milk, and a breakfast-roll. An egg or two is an allowable addition. Any one on one hundred dollars a month can live comfortably and pay all his college expenses, if he has a mind so to do; and in six months, provided he already possesses a reasonable knowledge of German, he can acquire a most gratifying amount of practical information and manual skill in the employment of the instruments of the specialists.

The application of the above remarks on expense will be annulled during the great "Welt-ausstellung" that takes place this year.

It is said, on good authority, that the summer course of the university will be omitted this year, for such a great increase is anticipated in the rent of rooms and in the cost of the necessities of life as to place them beyond the reach of the average German student.

Every "Wiener" intends to make his fortune out of the crowd of Americans and English who are expected to fill the city during the exposition.

Abel F. Price, M.D.,
Assistant-Surgeon U.S.N.

PROCEEDINGS OF SOCIETIES.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

February 3, 1873.

Director W. S. W. Ruschenberger, M.D., in the chair.

Present—Drs. Tyson, I. Norris, J. G. Hunt, W. L. Wells, Holt, McQuillen, B. H. Coates, and Richardson, and Mr. Corlies.

Dr. James Tyson read a paper on the "Microscopic Study of Blood and Epithelium," giving full details of the methods now employed in England and on the continent for the investigation of these important structures, and illustrated by experiments demonstrating the mode of producing hæmin-crystals.

Dr. J. G. Hunt remarked that, although this sanguinary subject had been troubling the minds of physicians for some two hundred years, it was probable that even now some of the gentlemen present would not be able to agree with others in regard to the structure of the blood-corpuscles. In difficulty and comparative inutility it somewhat resembled the much-vexed Diatom question; and yet he, the speaker, must plead guilty of having spent some time in these investigations. Quite recently, in examining the blood of a frog, he had seen the nucleus (which, by the way, is a post-mortem change, and never seen in living corpuscles whilst circulating in the vascular system of the reptile) make its way through the protoplasm of the disk, and migrate some distance beyond the margin of the latter, when it appeared under a power of one thousand diameters to be surrounded by a homogeneous vesicle about the size and shape of the rounded corpuscle from which it seemed to escape. This delicate vesicle was so very hyaline that even with a high power it required the most careful manipulation of light for its satisfactory demonstration. At the conclusion of his remarks Dr. Hunt exhibited and compared the absorption bands produced in the spectrum by blood, a solution of magenta, and one of chlorophyll.

On motion, Dr. Tyson's paper was referred to a committee composed of Drs. J. G. Hunt, Isaac Norris, and Richardson.

Dr. J. G. Richardson observed that there was one point in his friend Dr. Tyson's excellent paper which did not fully accord with the results of his own investigations, and that was the statement that the red blood-corpuscles finally disappear when acted upon by water. In certain experiments undertaken some years since in order to test the assertion of Prof. Beale that the red blood-globules are homogeneous drops of jelly-like matter, he had allowed ten drops of blood from his finger to fall into two fluidounces of pure water, and, after stirring up the mixture, had found at the end of twelve hours, at the bottom of the vessel, a whitish flocculent deposit, which under a high magnifying power was seen to be composed of red corpuscles decolorized and rendered spherical by the action of the aqueous fluid. These continued visible for three days, at the end of which time they became obscured by the development of Bacteria; but at a subsequent period he repeated the experiments, slightly altered to prevent the disturbance of the investigation by the growth of fungi. This modification consisted in adding to the water employed a small quantity of carbolic acid, under the influence of which the liquid was preserved free from fungi, and the decolorized corpuscles were distinctly visible, almost unaltered, at the conclusion of thirty days; so that it could hardly be said that they disappeared under the action of water, at least in this instance.

Dr. J. H. McQuillen mentioned that he had observed the appearances, in frog's blood under the influence of alcohol, ether, etc., as described by Dr. Hunt, as long ago as 1868, and in examining recently some specimens mounted at that time he had been pleased to find that the corpuscles retained their shape and general characters in a good degree. He had never been able to detect in human blood the change from a biconcave to a biconvex shape, said by Mülder to occur in the de-arterialization of the blood, and to be the cause of the alteration of color from a bright red to a dark purple hue. He would like to inquire whether the recent improvements in the micro-spectroscope enabled us to absolutely distinguish venous from arterial blood, and also what acceptance Prof. Beale's views of the homogeneous nature of the red blood-corpuscles received from the histologists of Germany.

Dr. Hunt stated in regard to the form of the human red blood-disks that he had repeatedly examined them as opaque objects under a power of one thousand diameters when illuminated by Wenham's truncated parabola, which rendered them distinctly visible, but deprived them entirely of all appearance of a biconcave shape.

Dr. W. Lehman Wells suggested that, in order to test the asserted biconvexity of the corpuscles in venous blood, that fluid should be removed, and preserved during the entire examination, in an atmosphere of carbonic acid, since the oxygen of the air would almost immediately alter their outline, and thus vitiate the results of the experiment, unless precautions against its access were employed.

Dr. Tyson observed that Brücke and Stricker admit

the presence, in the human red blood-disk, of two different substances, which they denominate respectively oekoid and zooid; the former of these two constituents being a frame-work which does not really dissolve in water, but becomes invisible to low powers and any but very careful illumination; whilst the latter is freely soluble in water in all proportions. As to the doctrine of the vesicular nature of the corpuscles, he thought it was disputed by most German histologists of the present day. In reply to Dr. McQuillen, he remarked that he had always doubted the hypothesis of Mülder, on account of his repeated failure to detect any foundation for it on microscopic examination, and he thought the change in hue was now much more satisfactorily explained by Stokes, who has recently demonstrated by the micro-spectroscope that we can produce from the purple cruorine of venous blood the scarlet tinge of the arterial fluid by more highly oxidating this coloring-material, and conversely reproduce the dark tint of the venous current by deoxidating the cruorine.

Dr. RICHARDSON stated that although the micro-spectroscope was undoubtedly the most delicate test for blood, yet, since it afforded no clue to the animal from which the blood was derived, he thought that for the purpose of distinguishing blood-stains in criminal trials an investigation of the size and shape of the corpuscles with high powers was practically much more valuable, especially as he had shown that the corpuscles of human blood could be discriminated from those of most of the animals used for food, such as the sheep, ox, and pig, in a particle of dried blood-clot not weighing over $\frac{1}{12000}$ of a grain (see *American Journal of the Medical Sciences*, July, 1869).

Dr. TYSON asked whether testimony respecting the size of the corpuscles, founded upon observations made on such an extremely minute fragment of blood-clot, would be accepted in a court of law.

Dr. RICHARDSON answered that if there was any difficulty about a case on that score he thought he could take his microscope into court and satisfactorily demonstrate to an intelligent jury the obvious differences which exist between the average diameter of the corpuscles of an ox, a sheep, and a human being, when sufficiently magnified with a powerful objective.

Dr. HUNT thought that such variations in the size of the red globules occur in individual specimens of blood that he would not feel justified in testifying to the origin of the fluid from the measurement of its colored disks.

Dr. RICHARDSON replied that although a few corpuscles in each specimen of blood did vary from the average diameter of their companions, yet when proper precautions against the evaporation of the liquor sanguinis were used, the large majority of the red disks (ninety-eight or ninety-nine out of a hundred) were so uniform in magnitude that practically he had found these comparatively rare deviations from a standard size not to embarrass the investigation.

Dr. HUNT remarked that, whilst the examination of blood-stains might occasionally be useful in murder-trials, most of our researches into the microscopic appearances of blood as well as other tissues of the body were valueless because made upon structures altered, perhaps utterly changed, by death. Hence all our so-called histological investigations were only pathological ones, and taught us absolutely nothing of the powers and properties and processes of living bodies. He believed that the finding of some method to bridge over the *hiatus* between our knowledge of dead blood, for example, and our knowledge of the nature of blood alive in its vessels, was a grand desideratum which still remained to be accomplished.

Dr. TYSON replied that he had no doubt all these various researches would ultimately prove useful, although we could not at present see any direct advantages accruing from the expenditure of time upon them. The beautiful vegetable specimens of Dr. Hunt were undoubtedly of dead matter, and yet, thanks to his laborious and pains-taking modes of preparation, they gave every one clear ideas of the structures under investigation.

Dr. RICHARDSON added that it seemed to him that a first and most important span of this desirable bridge over the hiatus complained of by his friend Dr. Hunt, had been thrown by Prof. Cohnheim in his famous experiment upon the mesentery of a curarized frog, during which the white blood-corpuscles can be seen to accumulate on the inner surface of the smaller blood-vessels when a partial stasis of the blood-stream occurs as the first step of inflammation, and then gradually work their way by their amœboid movement, doubtless, through the stomata between the endothelial cells, until they appear outside the vascular walls, when they constitute, in part at least, the leucocytes of pus.

Dr. HUNT admitted that the experiment last referred to was an investigation upon living blood in its living tissues; and exhibited a very ingenious improvement of the deep glass cell for holding small fish, tadpoles, etc., during examination.

REVIEWS AND BOOK NOTICES.

A HANDBOOK OF POST-MORTEM EXAMINATIONS AND OF MORBID ANATOMY. By FRANCIS DELAFIELD, M.D., Curator to Bellevue Hospital, Pathologist to the Roosevelt Hospital, etc. New York, William Wood & Co., 1872.

A treatise of this kind, to be complete, must cover a great deal of ground. The volume before us does not claim to be exhaustive, but "is intended to serve as a guide for those persons who may be called upon to perform post-mortem examinations. For most physicians this call is only an occasional one: so they may feel the need of some handbook to which they may refer." It strikes us, however, that such physicians require more minute and detailed directions for their guidance in making these investigations than they will find in this volume, and as a book of reference on pathology it is not sufficiently thorough and complete.

For example, in the directions for opening the skull we are told to "make a circular incision from a point three and a half inches above the root of the nose, behind to the occipital protuberance." No instructions are given for preventing displacement of the calvarium when it has been restored to its position after the examination is concluded. This displacement is almost sure to occur when a circular cut has been made, and the deformity thus caused is very objectionable to the friends of the deceased. The plan adopted abroad of inserting small brads into the diploë keeps the parts in perfect and firm apposition.

It is advised to immerse eyes, as soon as removed, in "Müller's fluid;" but what the composition of this preservative is, the physician is left to find out from some other source.*

No mention is made of emphysema of the liver, which, although a rare lesion, has been sufficiently often met with to make one expect to find some allusion to it here. Frerichs, in his work on Diseases of the Liver (Syd. Soc. translation, vol. ii. p. 369), has written a chapter on the subject, and in the number of this journal for October 5, 1872, there is a lecture, by Dr. J.

* The formula for Müller's fluid is as follows: R Potassæ Bichromat. gr. lxxv., Sodæ Sulphat. gr. xxv., Aquæ fld. oz. vi. M.

Forsyth Meigs, on a case in which this lesion occurred in the course of typhoid fever.

The work is divided into four sections. The first gives the method of examining the bodies of adults and new-born children, and includes a brief description of the anatomy of the internal organs.

The second part is a general consideration of morbid anatomy, and occupies the greater portion of the book.

The third part gives the lesions found in some of the general diseases, as typhoid and typhus fever, sunstroke, pyæmia, etc., the lesions after drowning, poisoning, suffocation, and other forms of violent death.

We may remark here that there is no statement made as to the condition of the heart after death from sunstroke. Observers have differed on this point: one of the latest, Dr. H. C. Wood, found the heart rigidly contracted, while others have stated that it is flabby and dilated, after death from this disease. The fact seems to be that the condition of the heart depends upon the length of time after death that the examination has been made, the organ being at first contracted, but after a few hours becoming relaxed.

The fourth section treats of tumors, in the classification of which the author follows Virchow, as do most of the pathologists of the present day.

As a whole, the book is good, being concise and accurate; and, although we have felt called upon to point out some of the deficiencies we have noticed, it is evident that the author is thoroughly conversant with his subject, and has compiled a work that will be useful and convenient to many. The portion relating to new growths in the different organs has been particularly well done. The value of the work would have been greatly increased by references to authorities.

The Practice of Surgery. By Thomas Bryant, F.R.C.S., Surgeon to Guy's Hospital. With Five Hundred and Seven Illustrations. 8vo, pp. 984. Philadelphia, Henry C. Lea, 1873.

In his preface, the author says that the London publishers (Messrs. J. & A. Churchill) invited him to write a work on the Practice of Surgery, "under the impression that there was room for a new text-book on the subject." And no doubt not only did they know the existing state of their market, but the shrewd republisher in this country was equally well aware that his enterprise would be rewarded. This might seem strange to non-professional persons, who cannot be familiar with the many phases in which medicine and surgery present themselves to the experience of different men. Mr. Bryant's book gives the results of his many years' service as surgeon at one of the largest London hospitals, and as such is a valuable addition to our literature. His title seems to us somewhat inadequate, as he has embodied much of the theory of the science with his practical instructions.

We cannot, in the space at our command, go into anything like an analysis of this work. An examination of it has convinced us of its practical character, and of the wide range of its author's reading; while a merely superficial glance would perceive the many new and good illustrations and the handsome mechanical execution, which enhance its claims upon our favor.

Some specimens of careless writing we cannot but note. Thus, in regard to scalds of the larynx, it is said that "this somewhat common accident is doubtless engendered amongst the poor by the habit of feeding their children out of a teapot." Again, in speaking of tracheotomy, "As the result of hurry, many are the mistakes that might be enumerated, such as wounding of the innominate or carotid artery, the opening of the œsophagus through the trachea, the puncturing of the spine through both these tubes," etc. We should say these "mistakes" were due either to flurry,—a different thing from hurry, and a far worse,—or to want of anatomical knowledge or of practice on the dead subject. Again, two lines farther on, "the different points in the neck are then to be made out, and the presence of any large vein in the line of incision looked for, and if present avoided."

These are but minor faults. We take graver exception to our author's use of the term *chancre* for all primary venereal sores; thinking that the soft sore is far better named *chancroid*, and that for practical purposes the making of an "intermediate class" of sores is unnecessary, while it is confusing to the student.

Upon the whole, and we repeat it because we think Mr. Bryant has met with rather harsh treatment from some of his reviewers, this book may be looked upon as a decidedly valuable contribution to surgical literature. It bears evidences of honesty and conscientiousness in its preparation, and of a basis of intelligent practical experience, which should secure it at least respectful criticism.

Fistula, Hæmorrhoids, Painful Ulcer, Stricture, Prolapsus, and other Diseases of the Rectum, their Diagnosis and Treatment. By William Allingham, F.R.C.S. Eng.; Surgeon to St. Mark's Hospital for Fistula, etc.; Late Surgeon to the Great Northern Hospital. Second Edition. Small 8vo, pp. 265. Lindsay & Blakiston, Philadelphia, 1873.

We have been most favorably impressed by this book, having derived both profit and pleasure from its perusal, although its author apologizes for his rough style and his inability to write elegant English, in a preface which is attractive from its mere simplicity and earnestness.

A man may write well on scientific subjects, but hide his individuality under so thick a veil of formally constructed sentences that we have no acquaintance with him as a man, though we may fully understand his views upon the subjects of which he treats. This is too much the fashion of the day; and yet we think that those books will be longest read, even in medicine, which are less apathetically scientific and permit us to feel interest in the characters of their authors. We have been led into this digression by the freshness and energy of Mr. Allingham's preface, and must now speak of the book itself.

In the first chapter, our author treats of the best method of examining the rectum, for which object the lateral decubitus is recommended. We are told that in women, under the influence of an anæsthetic, it is possible, and in some cases advisable, to introduce the whole hand within the rectum and so investigate the state of the parts even up to the sigmoid flexure. The author adds that to do this a small hand is desirable, but does not inform us how a large-limbed surgeon is to obtain such a desideratum.

We would direct especial attention to the chapters upon fistula and hæmorrhoids, and to the method of plugging the rectum for secondary hemorrhage after operations upon the latter, as particularly valuable, and indicative of that thoroughness of treatment in the attention to practical details which appears to be one of the great merits of this author.

Mr. Allingham advocates a free incision in cases of fissure of the anus, as less liable in his experience to be followed by relapse than is the case when the sphincter is forcibly dilated or but superficially incised. He also narrates a few cases, which have occurred in his large experience, where a cure has been accomplished by the use of stimulating and sedative ointments combined with careful general treatment. Such cases must certainly be regarded as very rare exceptions to the rule.

In speaking of the fæcal accumulations which occur in the rectum, and the vast amounts which sometimes

come away, our author (p. 230) says he has seen "two or three chamber-utensils passed at one operation," which, to say the least, is very surprising! We presume it was, as an Irishman would say, "the full of two or three pots." Why is not pot as good a word as utensil, vessel, pot-de-chambre, *et id omne genus?* Why should we emasculate our mother-tongue, and cease to use a good, short, native word, substituting an inaccurate, long, foreign hybrid in its place?

While we might venture to differ with Mr. Allingham upon some minor points, we should do so with great diffidence in the face of the experience he has enjoyed, and the table of four thousand cases upon which his book is based. And we have no hesitation in saying that we regard this eminently practical book as one of the most valuable contributions to the stock of knowledge of rectal diseases with which we are acquainted, and as one which no practitioner at all interested in the subject can afford to be without. That this is also the verdict of the profession is evidenced by so early a call for a second edition, which is issued by the American publishers in a very neat and attractive form.

A Handbook of Therapeutics. By Sydney Ringer, M.D., Professor of Therapeutics in University College, Physician to University College Hospital. Third Edition. 12mo, pp. 576. New York, William Wood & Co., 1872.

The demand for a third edition of this work is evidence enough of the popularity which it has gained. It is a handy-book of reference with regard to the therapeutic qualities of most of the articles in the British Materia Medica; arranged, however, in a very unscientific manner, commencing with oxygen, water, peroxide of hydrogen, and continuing through the list of chemical agents, some of which are partially classified in groups; after which follow substances of animal and vegetable origin, some of a class sometimes in rotation, and sometimes not. Then there is a posological table from Dr. Garrod's Materia Medica; a dietary for invalids, containing some excellent receipts; an index of medicines, and an index of remedies. Without the two indexes one would be in a great quandary to discover in what portion of the book he might find the information he wanted; but, as they are quite full, they render the work convenient for reference.

Certain subjects, such as digitalis, belladonna, opium, and a few others, are discussed with a tolerable amount of detail; and some others, including nitrite of amyl, hydrate of chloral, physostigma, and carbolic acid, have fair consideration. The views expressed are in the main sound, and the facts reliable; but different subjects are occasionally interpolated, or brought into line in foot-notes in a manner to worry a methodical reader. The object of the work is excellent, and the fund of information it contains exceedingly valuable; but we think that if the author had only taken time to elaborate his matter in some more systematic manner, it would have been of much greater practical value. The style of composition is curt,—sometimes loose; long sentences are comparatively rare; the language is plain and rarely mistakable. Take the book all in all, it is a very good one in spite of its faults, and, like a ready-reckoner to the overworked accountant, will be found—barring too many typographical errors—a useful handbook for the busy practitioner. ***

The Philadelphia Medical Register and Directory. Edited by John H. Packard, M.D., Secretary of the College of Physicians of Philadelphia. Third Edition. 12mo, pp. 304. Philadelphia, Collins, 1873.

We gladly welcome the new issue of this little volume, which, while almost essential to the comfort of physicians practising in Philadelphia, contains much of interest to the profession at large, in the shape of condensed and official information about the many charitable institutions in which we feel a pardonable pride.

As in all books of the kind, errors have crept into this directory; but we cannot feel surprised at what appears to be necessarily incident to such an undertaking. This state of things will never be corrected until, in addition to the thorough system adopted of inquiries both by mail and canvassers, the profession in Philadelphia resolve upon a hearty and pains-taking co-operation with the editor in his labors. We regret to see that Dr. Packard has restricted his mortuary list to the city of Philadelphia, discontinuing the more extended series begun in the last edition, and that greater fulness has not been attained in this narrowed field. It appears to be superfluous to add more concerning a book so well known, and read of all men. We would only urge upon all, whose office-tables are not furnished with this little volume, the wisdom of providing themselves with a copy at their earliest opportunity.

BOOKS AND PAMPHLETS RECEIVED.

Medical Essays: Compiled from Reports to the Bureau of Medicine and Surgery, by Medical Officers of the U.S. Navy. Published by Order of the Navy Department. 8vo, pp. 367. Washington, 1873.

Burns and Scalds: Their Treatment, with Cases. Read before the Sacramento Society for Medical Improvement, January, 1872. By Joseph F. Montgomery, M.D. 8vo, pp. 24.

Ophthalmic and Aural Surgery Reports. By Julian J. Chisolm, M.D., etc. (Reprinted from the *Richmond and Louisville Medical Journal.*) 8vo, pp. 24. Louisville, 1873.

Eighteenth Annual Report of the Southern Ohio Lunatic Asylum, at Dayton, Ohio. By S. J. F. Miller, M.D., Superintendent. 8vo, pp. 43. Columbus, 1873.

Annual Report of the Mississippi State Lunatic Asylum for the Year 1872. By William M. Compton, M.D., Superintendent. 8vo, pp. 52. Jackson, 1873.

Geological Survey of Pennsylvania. By Prof. J. P. Lesley. 8vo, pp. 12, 1873.

GLEANINGS FROM OUR EXCHANGES.

Traumatic Rupture of the Urethra; Puncture of the Bladder above the Pubes; External Urethrotomy; Cure.—*Le Mouvement Médical* of August 31, 1872, gives the following résumé of a case reported in *L'Union Médicale* by Dr. Bousseau:

F., 52 years of age, received on the 13th of last February a kick on the scrotum. Immediately after the receipt of the injury, blood passed from the urethra, and continued to do so for six or seven days; this hemorrhage did not cease entirely until twelve days subsequently. Three weeks afterwards, urine could only be voided in drops and with effort. Rupture of the urethra and contraction from cicatricial tissue had evidently occurred.

The patient was admitted into the Hôpital de Cholet on the 29th of March. The bladder was distended above the pubes, and the most powerful straining resulted only in the expulsion of a few drops of urine. M. Bousseau tried in vain for six days to pass the

stricture with filiform bougies, and then decided to perform the operation of external urethrotomy.

The operation was done with the assistance of Drs. Maudet, Cancalon, and Lorin. When the patient was placed in the required position, a grooved sound was introduced into the urethra as far as the anterior part of the stricture, and an incision was made in the perineum down to the extremity of the instrument. The lips of the wound being held apart, the surgeon endeavored to find the canal, but the search was attended with negative results. The incision was extended, but it was impossible to find the urethra. M. Bousseau then abandoned the first operation, punctured the bladder above the pubes, and fixed a gum catheter in the wound. The condition appeared most critical.

Four days after the performance of this operation the surgeon introduced a metallic sound with a large curvature into the bladder through the wound in the hypogastrium. The index-finger introduced into the wound served as a guide for the discovery of the neck and the extremity of the sound. There only remained about a centimetre (one-third inch) of fibrous tissue to divide in order to expose the sound. An elastic catheter was afterwards introduced into the urethra through the penis, and was made to come out in the perineum. It soon became possible to pass the catheter into the bladder and to fix it in position. No symptoms of any consequence ensued; the hypogastric fistula closed in four or five days, and the urine soon took its normal course.

M. Bousseau has undoubtedly given proof of his dexterity, and his efforts have been crowned with success.

The case shows us how difficult it is to perform the operation of urethrotomy without a guide. Would it not be more prudent, as M. de Méric of London has remarked, to puncture at once the bladder through the rectum, and to leave the re-establishment of the normal course of the urine to further procedures?

Could not the bladder be emptied by a capillary trochar, assisted by the aspirator, an operation which has been shown to be trifling in character?

Chloral-Urea—its Influence upon the Animal Organism (Langaard: quoted from *Centralblatt für Med. Wiss.*, No. 42, 1872).—At the suggestion of O. Liebreich, Langaard has investigated the assertion of Jacobsen concerning the union of chloral with urea. There are two forms: one almost insoluble in water and alcohol, but easily soluble by heat; the other, even in boiling water, almost insoluble. The first is represented by the formula (C_2HCl_3O, CoH_4N_2;) the second by ($[C_2HCl_3O]_2\,CoH_4N_2$). Both of these are decomposed by alkalies—but more slowly than chloral hydrate, especially the insoluble form—into chloroform, formates, ammonia, and carbonates; the insoluble form, however, may remain in a strong solution of potash for hours, at the ordinary temperature of a room, without being completely decomposed.

Small doses administered by the stomach, in quantities varying from 0.5 to 0.75 gramme, have scarcely any hypnotic influence. Equal or somewhat greater doses, administered hypodermically, have a hypnotic influence in about one hour. Larger doses (2.5 grammes) injected gradually into the stomach produce very apparent drowsiness without anæsthesia, but have proved fatal, with symptoms of slow pulse and irregular respiration. Post-mortem examination showed the left ventricle to be almost empty, and the right ventricle distended at the vestibule; in the urine of the bladder chloral-urea was detected. Two-gramme doses in solution introduced into the stomach produce, in about one hour, long-continuing sleep. Anæsthesia accompanying sleep is produced by the introduction of the fatal dose of four grammes into the stomach. In such cases anæsthesia occurs in half an hour, and death in seven hours. Both ventricles are then found dilated, and in the bladder a little urine is discovered which contains principally chloroform. The hypnotic effect of small subcutaneous doses (0.5 gramme) may be accelerated by the introduction of two grammes of carbonate of soda into the stomach one hour before they are administered, sleep without anæsthesia being produced in fifteen minutes. If in the same animal the injections are continued, so that in two hours it receives two grammes of chloral-urea, anæsthesia is soon perceived, and at the same time irregularity and weakness of the heart ensue, and its action ceases in thirty hours. In these cases the post-mortem examination revealed a dilatation of the ventricles and vestibules. In the scanty urine of the bladder neither chloral-urea nor chloroform could be detected. The insoluble modification works with much less intensity in the presence of an alkaline solution than the one already described.

Enlargement of the Cervical Glands disappearing during an Attack of Erysipelas (*Le Mouvement Médical*, November 16, 1872).—N., 74 years of age, was admitted into the Hôpital Saint-Antoine (service of M. S. Fereol) on the 6th of July. In April, after an attack of deafness, the patient observed an enlargement of two glands on one side of his neck, and afterwards on the other. They increased rapidly in size, and soon the neck appeared to be continuous with the thorax. Œdema followed, but it was confined to one side of the neck. Attacks of hæmoptysis occurred, and were attributed to the presence of varicose veins in the œsophagus and trachea, a diagnosis rendered still more probable by the existence of enlargement of the veins at the base of the tongue. The circumference of the neck varied between 50 and 53 centimetres. During the last days of the patient's life, before the occurrence of the fatal complication, it had attained 57 centimetres. Erysipelas of the right arm developed and rapidly assumed a gangrenous form. Two days after its onset it was observed that the enlargement of the glands had almost entirely disappeared. The patient died two or three days after the occurrence of the erysipelas.

The glands were found, at the autopsy, to be less voluminous than when observed during life, but of greater size, however, than was anticipated. On opening the internal jugular vein, two tumors were found; they were of the size of a bean, and were continuous with the external tumors. The calibre of the vein was obliterated by them.

The glandular tumors were slightly adherent to the skin, which was itself somewhat attenuated. Section of the skin of the arm revealed œdema of the cellular tissue, and the presence of small tumors, which, when enucleated, left small cavities behind. Examination of the blood did not show any increase in the proportion of the white disks.

According to M. Castiaux, the skin is not adherent in simple adenitis. M. Malassez, however, states that this does not always occur, for he has found the skin in some cases very tightly adherent to the tumors, and even ulcerated.

Aneurism of the Left Vertebral Artery—Rupture—Gradual Hemorrhage beneath the Meninges (by A. Sevestre: *Le Mouvement Médical*, October 12, 1872).—A man, 45 years of age, after an indescribable attack of sickness, was taken in the early part of September with cephalalgia and lumbar pain. During the first twelve days of his illness he was able to attend to his work.

Finally, a second attack occurred, and was followed by paraplegia. Two days afterwards the power of

motion was partly restored, and when the patient came under the care of M. Jaccoud, in the Hôpital Lariboisière, paresis alone remained. The patient was able, with some difficulty, to stand erect. The urine contained neither albumen nor sugar. The heart-sounds were normal. On inquiring into the previous history of the patient, it was found that he had had a chronic urethritis, accompanied by sore throat, and an eruption upon the body. The diagnosis, based principally upon these latter phenomena, was that of cerebral tumor of syphilitic origin, and a tumor, probably, of the spinal cord in the lumbar region. The patient was treated with the iodide of potassium.

Other attacks ensued, and on the 27th of September there occurred a marked amelioration of the symptoms, the patient being able to get out of bed and walk about. On this same day a new attack carried him off suddenly. At the autopsy, blood was found effused beneath the membranes at the base of the brain and into the fourth ventricle; hemorrhage had also occurred around the dorsal and lumbar portions of the cord. The cause of the hemorrhage was the rupture of a sacciform aneurism of the left vertebral artery.

A hasty examination failed to reveal the presence of other aneurisms, either in the brain or membranes of the cord. There was no atheromatous degeneration of the vessels. M. Sevestre thinks, from the course of the symptoms, that the hemorrhage occurred gradually. The sudden death may be explained by the effusion of blood into the fourth ventricle.

Inflammation of the Penis (by M. Demarquay: *Le Mouvement Médical*, August 31, 1872).—Suppuration of the corpora cavernosa is of very rare occurrence: hence the following case, communicated by M. Demarquay to the Chirurgical Society, is of practical and scientific interest. X., 38 years of age, was admitted into the Maison de Santé on the 17th of April, 1872. He was a man with a constitution impaired by four attacks of acute blennorrhagia, the last one having occurred seven years previously. Several weeks before his admission the patient was taken with retention of urine and tenesmus, and at the same time a small tumor formed in the perineum in front of the anus. It suppurated, and was incised; but subsequently a swelling occurred behind the bulb. M. Demarquay diagnosticated an abscess originating in the glands of Cowper. The parts involved were freely incised, but complete cicatrization did not take place, and urine occasionally escaped from the wound. On the 1st of June the skin of the inferior surface of the penis became red, tender, and painful, and on the 5th the organ had increased to an enormous size, and looked as if it was in a state of erection. The sensation imparted to the touch was that of hardness rather than of puffiness; pressure caused a moderate amount of pain. M. Demarquay made the diagnosis of inflammation of the penis.

General symptoms of a very grave character occurred two days subsequently, and the patient died on the 10th of June. The following is the result of the autopsy:

Corpora cavernosa.—On the left side the changes are most manifest in the middle part, which is the seat of a collection of pus.

On the right side the lesions are pretty much the same, but the amount of pus is not so great.

Urethra.—The mucous membrane is injected; in the sub-mucous tissue, near the bulb, there is a collection of pus; the postero-lateral parts of the canal, about four centimetres behind the glans, are dissected up by an abscess; the bulb is infiltrated with pus in the same manner as the corpora cavernosa.

Localization of Brain-Functions (*British Medical Journal*, October 19, 1872).—Meynert, one of the ablest of the modern students of the anatomy of the nerve-centres, has sought, by combining phrenological with clinical and pathological observations on the functions of the cortical layer of the cerebral hemispheres, to define to some extent the localization of the different functions in the gray matter of the cortex. He distinguishes five special functional centres. 1. The olfactory lobe or nerve, which, highly developed in animals well gifted with the power of scent, is almost atrophied in man, less highly endowed in this respect. 2. The walls of the fissure of Sylvius. These are in intimate relation with the power of speech, as is found in aphasia, which is the consequence of changes in them. 3. The occipital and temporal lobes. Anatomy shows the relations of these parts with the organs of the senses,—the retina, labyrinth, and olfactory nerve. In cases of blindness and deafness rapidly developed, these lobes are the seat of evident alterations. The experiments of Flourens on the ablation of the cerebral lobes support this theory; for, if but little of the substance be removed, the senses are not much affected; but if the ablation be carried deeper, the sensorial functions immediately cease. 4. The frontal lobes. These lobes are the principal seat of motor excitation, as is shown by their anatomical relations with the corpora striata. Besides, in the forms of psychoses which are accompanied by extensive disorders of the motility (general paralysis) these are the most atrophied of all the parts of the brain. The continued need of movement, the agitation of mania, are equally based upon change in the frontal lobes. 5. The cornu of Ammon. This organ plays an important part in the functions of motility, and almost always presents, in epilepsy, conditions of atrophy or sclerosis.

Hops as an External Application (*Druggists' Circular*).—If possessed of any virtue as an anodyne, and popularly hops have great reputation as such, the effect is best obtained by *steaming* a muslin bag full of them, on the side to be applied to the body, until quite soft and damp,—not wet.

The ordinary method of wringing out in hot water wastes all the strength of the hops, and makes a nasty mess.

Another Anæsthetic (*Journ. of Pharm.;* from *Wittstein's Vierteljr.*, No. 95, 1873).—*Iodal* ($C_4HI_3O_2$), discovered by Aimé more than thirty years ago, which is obtained by acting upon iodine with a mixture of absolute alcohol and concentrated nitric acid, is recommended by Guyot as an excellent anæsthetic, in doses of one to two and a half grammes. It is a colorless oily liquid, resembling chloral in odor; boils at 25° C., and is decomposed by alkalies into iodoform and formic acid.

MISCELLANY.

Anecdote of Hippocrates (*British Medical Journal*).—Dr. Warburton Begbie, in a recent inaugural address before the Royal Medical Society of Edinburgh, after discussing the reasons for and against the belief that Hippocrates was a witness of the great Athenian plague, says,—

"One other circumstance in the life of Hippocrates is mentioned by Soranus,—namely, his refusal to go to the court of Artaxerxes (surnamed Longimanus) when invited to pay a professional visit. This story, as it has reached us, is as follows. Persia happened to be ravaged with the plague. The governors of Asia

Minor wrote to Artaxerxes to inform him of the high reputation of the Coan physician. The king, in replying, desired the governors to make the most liberal offer, in order to induce Hippocrates to visit his vast dominions. The governors forwarded the letter of the king, and, in doing so, promised in his name every reward and honor which he could wish for or at all desire. The physician, however, refused, and returned answer in these striking words, which, to use the language of a modern French writer, ought to be engraved on the memory of all those of his successors who can think and who can feel. 'I have in my own country the food, the clothing, and the habitation I require. As a Greek, it would be unworthy of me to aspire to the riches and grandeur of the Persians, and to serve the foes of my country and of liberty.' This haughty and memorable answer nearly plunged Hippocrates into trouble; but, when demanded by Artaxerxes to deliver him up, in order that punishment for his insolence might overtake him, the inhabitants of Cos dared the great king, and refused to deliver up a fellow-citizen of whom they had so much reason to be proud, and to whom they owed so much. The firmness of the attitude which these patriots assumed, and the unity by which at that time the different Grecian states asserted their common independence, averted in all probability a Persian invasion, which at first appeared to be all but imminent. Now, in regard to this story, just as respects the one already mentioned of the Greek plague, Dr. Ackermann, in his account of Hippocrates in Fabricius, *Bibliotheca Græca*, Dr. Henderson, and other modern scholars, affect to treat it with disbelief; why or wherefore they do not very clearly state. As opposed to this view, we have the opinions of the accomplished Cabanis and of Dr. Adams, who, while readily admitting that the letters in the Hippocratic collection which relate to this story (these are from the first to the tenth inclusive) can scarcely be received as genuine, find no proof that the event upon which they are made to turn is also devoid of truth. It is evident, indeed, that the ingenious and shrewd French author to whom I have alluded attached very considerable credit to the anecdote, for he has quoted it in both of his well-known works, offering the following apology for the repetition: 'I have already cited it in my essay *Sur la Certitude de la Médecine*, but may perhaps be allowed to repeat the quotation at a time when certain writers seem to be using their utmost efforts to stifle all free and generous sentiments.'"

New York Academy of Medicine.—At the stated meeting of the New York Academy of Medicine, Dr. Austin Flint, President, in the chair, held February 6, 1873, Dr. William B. Lewis, late of New York City, was elected a Non-Resident Fellow. Drs. T. Gaillard Thomas, E. R. Peaslee, James Anderson, Jerome C. Smith, and W. M. Chamberlain made remarks concerning the death of Dr. James L. Brown, a Resident Fellow, and a rising gynæcologist, who died February 4, 1873, from pneumonia, after an illness of three days, aged forty-two years. A committee of three, appointed by the chair, consisting of Drs. Thomas, Chamberlain, and Smith, reported appropriate resolutions, which were unanimously adopted.

At the last meeting of the Council of the Academy, Bradford S. Thompson, M.D., of New York City, was elected Statistical Secretary of the New York Academy of Medicine for five years.

"Settling" a Bill.—The following, from a secular paper, seems to us to have a strong touch of nature in it: "In Texas, recently, a doctor rode fifty miles to attend a patient. After he had cured the patient he presented a bill for fifty dollars, and proceeded to complete his preparations for the journey back to the post, thinking no more about the matter. As he was about to mount, the patient's husband put in an appearance, with his trusty rifle in his hand. 'Doctor,' said he, 'I reckon we'd better settle this here matter now;' and, taking him aside, 'You wa'n't agoin' off without a settlement, was you? I don't want to owe no man nothin'. Here is a ten, which I reckon is about the squar' thing. Now, if you ain't satisfied, just get your weepon and come 'round behind the hill thar, so's the old woman won't be riled up, and we'll settle it. I don't want no man to go 'way from my house dissatisfied, 'specially you, Doc.'"

Ventilation and Warming.—In a lecture on ventilation, lately delivered before the Franklin Institute, Mr. L. W. Leeds, after detailing the abominations he encountered in his examination of the ventilating arrangements of the Treasury building at Washington, gives the following practical directions concerning provisions for ventilation and warming in the construction of buildings. First, never have long underground fresh-air ducts. Second, never allow a sewer, soil-pipe, foul-air flue, or smoke-flue, to come near the fresh-air supply-flue, for fear of some connection being made between them by carelessness or accident. Third, never heat a building exclusively by currents of warm air. Fourth, always put the heating-flues on the outside walls instead of on the inside walls. Fifth, endeavor strenuously to avoid the fresh-air chamber becoming a common receptacle for all the rubbish of a filthy cellar.

Association of French Army Surgeons.—The *British Medical Journal* of December 21, 1872, says, "The medical officers of the army of Paris and Versailles have formed a society. It was first instituted as a club to maintain union and a spirit of confraternity among the members of the sanitary service, but has grown into a society, in which professional interests and questions relating to the special position of the military surgeon are made the subjects of written or oral discussions. The name of 'reunion' has been given to it (in place of its former title of club): the meetings are held every Friday. The society has as its organ the *Bulletin Médical Militaire*, which is published as a supplement to the *Bulletin de la Réunion des Officiers*,—

an evidence of good feeling between the combatant and the medical branches of the service."

The *Lancet* of January 25 says that, "true to his loyalty to the medical art, the late Lord Lytton, in a document addressed to his legal representatives, stipulated that after death, or presumed death, his body should lie untouched three days on the bed on which he died; and that thereafter medical men should examine him to ascertain that he was really dead, and, if so, to certify accordingly. The profession will see with satisfaction that his lordship will receive the honor of interment in Westminster Abbey."

Dealing with Lunatics.—The *Lancet* humorously says, "In view of the cruelties recently perpetrated in lunatic-asylums upon helpless inmates, the recommendation of the late Mr. Charles Buxton must to many appear to be a humane one. This gentleman advised that all insane persons 'should be comfortably shot;' and, with a thoughtful concession to the privileges of the clergy, he added, 'I would have it done with the utmost decorum; perhaps by the bishop of the diocese.'"

Nassau.—This place, on the island of New Providence, offers great inducements to invalids in search of a mild and equable climate; while we are informed that the hotel is an excellent one. Dr. S. Conant Foster, formerly a well-known and highly-esteemed physician in New York City, himself needing the benefits of a southern climate, removed to Nassau a few months since, with the view of engaging in practice there.

Professional Risks.—It was stated in the memoir of M. Guersant, read before the Surgical Society of Paris, that that eminent surgeon contracted syphilis through a wound in his finger received while operating upon a patient affected with that disease, and that his death was the ultimate result of the constitutional infection so produced.

The fatal termination of the illness of Mr. Baker Brown, of London, is announced.

The late eminent Dr. Louis, of Paris, left a legacy to the Medical Association of the Seine, which will add over three hundred dollars a year to the income of that body. It is strange, certainly, that bequests of this kind are so rare, since they would in many instances be greatly to the advancement of science.

Curious Decision.—We see by the daily papers that the Second Comptroller at Washington decides that a soldier discharged for varicocele, resulting from an injury, is not entitled to the one hundred dollars bounty under the act of March 3, 1863. He also decides that varicocele is not an injury.

Commencement.—The Seventeenth Annual Commencement of the Pennsylvania College of Dental Surgery is to be held at the Academy of Music on Saturday evening, March 1, at eight o'clock. The address to the graduates will be given by Dr. Mears, Professor of Anatomy and Surgery.

It is proposed to revive the *Charleston Medical Journal and Review*, as a quarterly of eighty octavo pages. We presume Dr. F. Peyre Porcher, whose name is signed to the prospectus, will be the editor. A list of well-known and efficient collaborators is given as pledged to his support.

Dr. Isaac S. Mulford, long a practising physician and a man of much influence in Camden, N.J., died February 17, aged 73.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending February 22, 1873, were 303; 163 adults, and 140 minors. 10 were of bodies brought from the country; making the mortality of the city 293. Among the causes of death were:

Consumption of the Lungs	58
Other Diseases of the Respiratory Organs	55
Diseases of the Circulatory Apparatus	13
Diseases of the Brain and Nervous System	52
Diseases of the Digestive Apparatus	14
Zymotic Diseases (2 from Smallpox)	22
Typhoid Fever	3
Casualties	9
Cancer	5
Intemperance	2
Debility (including "Inanition" and "Marasmus")	23
Still-born	16
Old Age	17

(The interments reported for the week ending February 24, 1872, were 484.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER.		BAROMETER.
	Max.	Min.	(2 P.M.)
Feb. 16	37.0°	31.0°	29.99 in. (Snow and Rain.)
" 17	41.5	35.0	30.15 in.
" 18	47.0	31.0	30.38 in.
" 19	43.5	35.0	30.13 in.
" 20	41.0	33.0	30.29 in.
" 21	39.0	31.0	30.50 in. (Heavy Rain.)
" 22	30.0	20.0	29.97 in.

Death of Dr. Hugh L. Hodge.—As we go to press (Feb. 26), we learn of the sudden death of this venerable member of the Philadelphia profession, which occurred this morning. None of the particulars are as yet known to us.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM FEBRUARY 18, 1873, TO FEBRUARY 24, 1873, INCLUSIVE.

Vollum, E. P., Surgeon.—Granted leave of absence for thirty days, in lieu of twenty days' leave granted by S. O. 113, of 1872, from these headquarters, of which he did not avail himself. S. O. 25, Department of the Platte, February 15, 1873.

Bill, J. H., Surgeon.—Leave of absence extended thirty days. S. O. 30, War Department, A. G. O., February 8, 1873.

SATURDAY, MARCH 8, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 323.)

LECTURE IV.

ŒDEMA OF THE LARYNX.

UNDER certain circumstances, a serous, sero-sanguineous, or sero-purulent infiltration takes place with more or less rapidity in the sub-mucous connective tissue of the upper portions of the larynx, and chiefly upon their inner surface; the serous infiltration taking place in cases that run their course with great rapidity; and the sero-purulent, or, in some instances, purulent infiltration occurring in cases in which the action is slower and less violent. At other times a fibrinous exudation takes place, and sometimes an hemorrhagic exudation, into the same tissues. The mechanical result of this condition is, first, to impede respiration, and subsequently to obstruct it; and if the tumefaction does not soon subside spontaneously, which rarely happens, or is not promptly relieved by surgical interference, the patient perishes in a period varying from a few hours to a few days.

Although the disease is prominently located in the sub-mucous connective tissue, it has been found, not infrequently, that the mucous membrane itself has also been the subject of inflammation.

In addition to the mechanical impediment to breathing presented by the infiltration into the tissues, there is reason to believe that there exists, sometimes, a condition of spasm, and sometimes a condition of paralysis of the muscles controlling the opening and closure of the glottis, inasmuch as it has been found in the post-mortem examinations of some fatal cases that the amount of tumefaction was insufficient to account for the whole of the obstruction to respiration. Prof. Stromeyer* has called attention to the circumstance that this observation has not yet had a very great influence in a therapeutic point of view, at least in so much as it refers to the employment of direct remedies against spasm and paralysis.

Laryngoscopic observations of cases of œdema of the larynx have shown that the encroachment upon the normal breathing-aperture is sometimes much less than would be supposed before an inspection of this kind. Although the element of spasm or of paralysis may be in some instances regarded as portion of the direct pathological nature of the affection, there is reason to believe that the extreme nervousness induced by the dreadful fear of a fatal result which attends many cases of impeded respiration, whatever their cause, has much to do with these phenomena of spasm and paralysis.

The most frequent seat of œdema of the larynx is in the ary-epiglottidean folds, both of which are usually involved. Sometimes an effusion takes place into the structures of the epiglottis at the same time; sometimes it is limited to the epiglottis. Occasionally it implicates the vocal cords, converting them into thick obstructing pads, but the infiltration under these circumstances lies in the tissue of the thyro-arytænoid muscle itself, rather than beneath the mucous covering of the vocal cord. To this class of cases alone should be applied the term œdema of the glottis: a term unfortunately too often employed to denote any other œdema of the laryngeal structures also. Sometimes the œdema involves only the tissues immediately beneath the vocal cords, and under such circumstances the condition is designated as sub-glottic œdema of the larynx; a form of this affection to which Dr. Gibb† first distinctly directed attention.

Until the present century the pathology of œdema of the larynx was misunderstood. Its symptoms were usually regarded as denotive of croup in the adult; for although the affection has been known to attack the infant at the breast, and, on the other hand, to make its appearance in extreme old age, it is usually encountered in early and middle adult life. In 1808, Dr. Bayle read his famous paper on œdematous laryngeal angina to the Society of the Parisian School of Medicine; previous to which time, however, Morgagni, in his letter on serous apoplexy, and afterwards Bichat, had described the post-mortem appearances of infiltration of the ary-epiglottidean folds, which had not been detected before death; and at a still earlier period symptoms of a disease which must have been the same thing had been recorded without any evidence of a knowledge of the peculiar lesion which had given rise to them.

Œdema of the larynx sometimes occurs in the course of ordinary acute laryngitis, and constitutes the chief source of immediate danger in that complaint. It is also often present in the traumatic laryngitis following the accidental deglutition of hot fluids or caustic solutions, but it is not produced when they are voluntarily swallowed with suicidal intent.

It is also sometimes met with in the course of pharyngitis, whatever may have been its origin; occasionally, too, in the stridulous laryngitis of children.

It may also make its appearance suddenly during the course of other maladies, and is not confined to such as are ordinarily accompanied by affections of the throat. It is most apt to occur in the declining stages of disease, in the stage of convalescence, or defervescence rather, probably from want of due care as to protection from exposure to currents of air. Thus, it has been encountered in scarla-

* Verletzungen und chirurgische Krankheiten der Halsgegend, Freiburg, 1865, p. 348.

† On Diseases of the Throat and Windpipe, London, 1864, p. 211.

tina, measles, smallpox, typhus and typhoid fevers, erysipelas, farcy, Bright's disease, croup, whooping-cough, pneumonia, and in diseases of other organs productive of anasarca. Ryland* relates a case developed during the progress of measles in a child aged two years and nine months. On the lingual surface of the epiglottis there were found, after death, two deep ulcers, one the size of a split pea; and other ulcers forming a chain which almost surrounded the pharyngo-laryngeal surface of the superior aperture of the larynx. The lips of the glottis were reddened, and so much infiltrated that the ventricles of the larynx were almost obliterated; and the sides of the cavity above the vocal cords were closely approximated to each other. There was no trace of inflammatory action below the rima.

Dr. Reginald E. Thompson† describes a case of irregular ague, with granular kidneys, in which death took place by œdema of the glottis.

Œdema of the larynx is sometimes produced in the course of chronic laryngitis of tuberculous and syphilitic origin; in pharyngitis accompanying malignant disease of the tongue, pharynx, and œsophagus, whether directly implicating the larynx or not; in tumors of the cervical region; in aneurism of the arch of the aorta; and in cases of wounds and other mechanical injuries of the throat and parts adjacent; in cases of abscess and of ulceration of the larynx, whatever their origin; and in cases of the retention of a foreign body in the air-passages. It has also been known to occur from the use of mercury and of iodide of potassium: of the latter Nélaton‡ has related a case in which a female patient became affected with œdema of the glottis while using iodide of potassium; and Prof. Stillé§ mentions a similar and fatal case recorded by Dr. Lanné, in which the amount of the drug taken had been in all but seven and a half grains.

When idiopathic, it is more frequent in men than in women, and in free-livers than in persons of more temperate habits. Although occurring in persons in good general health, it is more apt to make its appearance in those broken-down in constitution or recently convalescent from acute disease; and in many instances there would appear to be some peculiar predisposition towards its production, the nature of which is not understood; for there are instances on record of more than one attack in the same individual.

The approach of œdema of the larynx is occasionally very insidious. Dr. Porter‖ mentions two instances within his own recollection, of young men who had retired to bed at night without complaining, and who were found dead from this affection on the next morning.

When accompanying other diseases, or following them, the occurrence of œdema laryngis may be preceded by the usual prodromata of inflammatory fever; but, as a rule, in this affection we find that its symptoms are marked, and in most cases come on more or less suddenly, and increase in severity with great rapidity. There is usually some tenderness, which only in some cases amounts to actual pain; dryness and heat, with a feeling of constriction in the throat as from the presence of some foreign body there; difficulty of inspiration, often accompanied by a harsh whistling or stridulous sound, and increasing, as the disease progresses, to all the phenomena of impending suffocation; cough to a greater or less degree, which is ineffective because the impediment to respiration, or to patency of the entrance to the respiratory organs, is of a permanent character, and not due to accumulation of matters that can be expectorated; feebleness, hoarseness, or extinction of voice; more or less dysphagia, which at times amounts to complete inability to swallow. The patient soon becomes restless, then anxious lest he suffocate; perhaps he tries to sleep, and may actually slumber for a few moments, but he wakes up after a very short interval, again a victim to his wretched sensations of choking. The face is flushed, the eyes prominent; the respiration hurried, and sometimes spasmodic; the pulse small, quick, and very much accelerated.

Simple inspection of the throat usually reveals more or less inflammation of the structures within sight, and sometimes infiltration of the palate, uvula, tonsils, and occasionally even of the pharynx; but very often no evidence of the disease is apparent in these parts. The infiltration of these parts is most apt to occur in œdema the result of acute inflammation.

The laryngoscopic inspection, where possible,—and it usually can be made,—reveals the nature of the lesion at once. Exploration with the finger is almost always feasible, and permits the detection of the swollen structures, as far as regards the implication of the epiglottis and ary-epiglottic folds. When the epiglottis is involved, it can very often be recognized on pressing down the tongue, appearing usually as a cyst-like eminence projecting above the base of that organ, varying in size from that of a peanut, which it often resembles in configuration, to that of a walnut. Occasionally the swollen ary-epiglottic folds can be brought into sight by inducing an effort of retching, which raises the entire larynx; but when the epiglottis is swollen they are less readily revealed. Sometimes the lingual surface of the epiglottis is not involved; and in such a case a cursory exploration of the structures might fail to determine the diagnosis.

Fig. 7

Œdema of the Larynx.

As seen in the laryngoscopic image, the appear-

* On the Larynx, Case IV.
† St. George's Hospital Reports, iii., 1868, p. 302.
‡ Abeille Médicale, x. p. 31.
§ Therapeutics, vol. ii. p. 763.
‖ Observations on the Surgical Pathology of the Larynx and Trachea, p. 82.

ances of œdema of the larynx (Fig. 7) are very characteristic. A pale reddish, or sometimes yellowish, translucent swelling, in general appearance not unlike an œdematous prepuce or eyelid, is found occupying the ary-epiglottic folds, usually both of them, though not often in equal extent, and sometimes existing on one side only. These swellings project towards each other, and narrow the laryngeal entrance into a mere slit, which becomes smaller during inspiration, from the downward pressure of the air upon the swellings slightly pressing them together; while during the passage of the expiratory current they are more or less widely separated, and sometimes permit a view of the parts below. Usually all distinct appearance of the so-called false vocal cord is obliterated, the entire mass, ary-epiglottic fold and ventricular band, presenting as one structure. The parts do not exhibit a very vascular aspect, and are sometimes more or less covered with mucus. When the epiglottis is involved, it seems like a huge sac distended with a limpid fluid overhanging the laryngeal entrance, and often hindering a view into the interior of the larynx (Fig. 8). The laryngeal face is but rarely implicated, but the lingual surface and crest are almost always affected. When the disease does not occupy the upper portions of the larynx, the lower portions are seen to project laterally in œdematous protrusion.

Fig. 8.

Œdema of the Epiglottis.

(To be continued.)

ORIGINAL COMMUNICATIONS.

SOME REMARKS ON BOILS: THEIR PROBABLE CAUSE, AND TREATMENT.

BY JAMES D. McGAUGHEY, M.D.,
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THERE is a class of individuals—great sufferers—who go from one physician to another, seeking relief, and generally getting turned away with the unsatisfactory consolation that time and patience will effect a cure. The class referred to above is composed of what may be termed "boil sufferers;" and when a crop of those furunculous pests exists on the neck, the sufferer's head is held in a stiff, uncomfortable position, which, with the agonizing pain that accompanies it, renders him an object of charitable sympathy and pity. He seeks in vain for ease, but is compelled to "grin and bear it," or, with Job-like submissiveness and patience, to yield himself up to a process of plasters and poultices until the boils are "drawn (?) to a head." And, after his enemies retire from the field, sad experience teaches him that they, perhaps, will return again and again to the attack, unless the physician prevents.

Dr. Jackson, in his "Letters to a Young Physician," has taken the trouble to write one (Letter No. XVI.) on boils; he appears to express more sympathy for "boil sufferers" than most writers, and says, rather facetiously, "Boils are among the troubles for which your friends will laugh at you rather than sympathize with you; and it is best to laugh too, if you can. But a boil is a *sore* [the doctor uses the right word] trouble; proverbially so." Boils may be Darwinian enough to have a law of "natural selection," as to time and place; but physicians are ignorant of it. For some inexplicable reason, they generally select the back or nape of the neck,—at least such has been my experience; and the next place in frequency has been the face; they also come on other portions of the body, except, Dr. Gross says, "the palm of the hand or sole of the foot."

The boil is a common sequel of eruptive fevers, as every physician knows, and sometimes several congregate, forming anthrax or carbuncle. The cause is obscure,—perhaps would not be so obscure or unknown if men of science having ample opportunity would pay more attention to its discovery, and their zeal for relieving such every-day human pain was equal to their desire for scientific *éclat* gained by research in more intricate and less common fields. Watch a man suffering acutely from furunculus as he goes to his family physician expecting to be relieved and cured. He inquires the cause of his boils, and why he is troubled with such continuous and successive crops. The doctor explains the cause or causes on "general principles,"—that hackneyed set term, which excuses and hides so much ignorance of minute and subordinate causes. The digestive organs are "out of order;" too much rich food,—gravy, butter, etc.,—although the man of boils may be as thin as a ghost; the poor "secretions" are all wrong, the liver "torpid," the blood "too poor," or "too thick," and many other common and *supposed* derangements are mentioned. In answer to an appeal for a cure, our Hippocratic disciple advises low diet, bowels open, poultices, and *patience;* and through a philanthropic feeling welling up in his heart for his suffering patient, and to comfort him before departure, he winds up his speech with the glowing epilogue, "Every boil is worth five dollars, you know." Patient departs "a sadder but a wiser (?) man," and thinks he would part with the whole crop for a "song," and be entirely satisfied with the trade. He, by his suffering and pain, is driven from doctor to doctor, seeking ease and finding none, until, disgusted with poultices, good advice, and patience prescriptions with no relief, he commences taking Jayne's Alterative, or some other analogous preparation highly advertised; the furuncles run their course, get well of themselves, and the patent medicine, having been used at the date of recovery, gets the credit of the cure.

Now, I enter a protest against this treatment generally shown by physicians towards "boil sufferers." What a comforting thought it must be to the

scientific physician, that the boil, the vulgar boil, is an "opprobrium medicorum," while he swells with toad-like pride over his success in discovering and isolating, by indefatigable research, some unknown cell many hundred times less than an inch in diameter, and beautifully coloring and mounting it,—a scientific *success*, to be looked at by few appreciative ones,—"only this and nothing more"! I thought a remark I once heard was quite apropos. A fellow pointed to a celebrated M.D. passing by, and said, "There goes Dr. S.: he can cut your leg off in fifteen minutes, but, d—n him, he couldn't cure my boils." It is the noble office of the medical art to relieve suffering not only in bedridden patients, but where acute pain accompanies man in his daily walk and in his daily business. Because a painful disease is common and does not directly endanger life, is no reason why its cause should not be sought for and checked or obliterated. The only experiments I have ever seen reported regarding the pathogeny of furunculus were by Dr. H. G. Landis, of Ohio, published in this journal. More properly speaking, his experiments did not relate so much to the pathogeny of boils as to the phenomenon of *increase* and *decrease* of leucocytes *before* and *during* the suppuration of his own furunculous sores, establishing the "*identity of leucocytes and pus-corpuscles.*" But his experiments have been suggestive of the cause of furunculus; and if he noticed an increase of the leucocytes in the economy far above their normal amount, and then their *synchronous decrease* with the *formation* of *boils*, it follows naturally that we should suppose the excess of leucocytes to be *eliminated* through the agency of the furunculus. Therefore, we might say, boils are local outlets to a system *temporarily* surcharged with a too great relative proportion of white corpuscles. I say *temporarily*, to answer the question why patients suffering with true leucocythæmia are not invariably covered with boils. For there is not a doubt but that the white cells are very often temporarily out of proportion, relatively to the red globules, from many causes; but this constitutes quite a different condition from *true leucocythæmia*, whose pathogeny is obscure, with involvement of the spleen and lymphatics, and where the proportion of white to red globules is as one to twenty. It does not take a greater relative abundance of white corpuscles in the blood to produce permanent leucocythæmic disease; for look at the system after acute or long exhausting disorders, and it will generally be found leucocythæmic,—perhaps indicating some debility in the organs which generate the corpuscle elements of the blood,—and *such systems very often suffer from severe and successive crops of furunculi;* and if microscopic observation were made in these cases I think we should find the leucocytes disappear as the boils suppurate, and the normal relative proportion between the red and white globules be established. Well, then, if white corpuscles in too great abundance are the cause of furunculus, why are not all cases temporarily affected with leucocythæmia troubled with *eliminative* boils? We might answer, all noxious matters in the economy are not invariably eliminated through the same channels: temperament, season, idiosyncrasy, and a thousand peculiar and modifying tendencies beyond the ken of man and microscopes, work results out in their own legitimate way, and express themselves in phenomena the natural solutions of their own inherent laws; so that, just as circumstances relating to the eliminative organs may be, the superabundant leucocytes are eliminated through the agency of furunculus, kidneys, or the other eliminative avenues of the system. It is hardly supposable that superabundant leucocytes are *eliminated only by changing into pus-corpuscles.* Therefore, leaving out the question, why the leucocytes are superabundant, it is not illogical to conclude that the *temporary leucocythæmic* condition of the economy is the cause of furunculus. But even granting the cause of boils to be known, so far as my knowledge extends, I know of no drug that has the power of reducing the redundant white corpuscles, or has the power to take away that peculiar condition of the system which seems to favor the leucocythæmic tendency. By some physicians the sulphate of quinine has been used empirically, for a number of years, with considerable success in the majority of cases, to prevent the return of successive crops of furunculi. Some have given it as a mere tonic; but Dr. Jackson gave it with quite a different view, because it seemed to him that quinine "operated by taking away or overcoming the susceptibility to the disease." Perhaps this view is an approximation to the true one; the quinine overcomes or takes away that susceptibility of the system, produced by some cause, miasmatic or otherwise, by which a temporary leucocythæmic condition of the circulation is brought about. Perhaps quinine has some direct controlling power over the redundant white corpuscles, or over the cause that produces them. It appears to me as if some experiments relative to this point might disclose something useful as well as interesting. I believe, from my own experience, that quinine given after the time has passed for aborting the pimples by an incision, will shorten the course and circumscribe the limits of furunculus. I remember a very marked case in which boils appeared just inside the external meatus of the ear every winter, at pretty much the same time. Arsenic was prescribed on the second recurrence with very good effect; but on the third recurrence, even after the boil had made considerable advance, quinine checked its growth, and it disappeared without suppurating, and up to this time there has been no recurrence. I know quinine has a remarkable control over superficial inflammations; whenever I am attacked with common sore throat, even though it has existed for twenty-four hours, quinine liberally taken until the head feels it, continued thus for twenty-four or thirty-six hours, will remove all soreness: at least it has not failed me in five several times. I think the best plan to follow in giving quinine is—considering the aborting period to have been passed—to commence as soon as possible and make a firm impression on the system with five-grain doses repeated every four hours until the head rings, keeping the impression up moderately by smaller and oft-repeated doses until the boil has

either suppurated or disappeared by resolution. A strict watch should be kept, so that the first pimple may be detected and incised; at the same time five or ten grains of quinine are given daily till all danger is past. No one need think he is going to be successful in circumscribing the trouble if he begins to give quinine just as suppuration is commencing. The great desideratum is to make a thorough impression on the system with the drug, keeping this impression up moderately with smaller and properly regulated doses, *for a considerable length of time*, according to the requirements of each individual case. According to my experience, arsenic—Donovan's solution, preferably—stands next to quinine. In concluding, I hope physicians will give quinine a thorough and judicious trial in furunculi, be they single, multiple, or in successive crops, as I think it is the only remedy that will circumscribe the limits and shorten the duration and prevent successive crops of those pestiferous sores.

TRANSLATIONS.

VON OPPOLZER'S LECTURES ON DISEASES OF THE ŒSOPHAGUS.

Being the latter portion of the first part of the second volume of Oppolzer's Vorlesungen über specielle Pathologie und Therapie, Erlangen, 1872.

Condensed from the German of Dr. Emil Ritter von Stoffella,

BY DR. J. SOLIS COHEN.

V.

RUPTURE AND PERFORATION OF THE ŒSOPHAGUS.

Rupture of the œsophagus is a very infrequent lesion. Apart from traumatic injury, it is observed, as a rule, only in cases of pre-existing disease of the œsophagus; though under certain circumstances it may also occur when the tissues are in a healthy condition. Ulceration, inflammation, mortification, carcinomatous degeneration, and constriction of the œsophagus, predispose to rupture.

The rupture occurs in most instances during violent bodily exertion, or during a severe effort of vomiting; though, as mentioned, usually only when the organ is diseased. Oppolzer saw but one case of rupture of a sound œsophagus. It occurred in a woman who was making violent exertions in ironing, during which the rupture took place, with fatal hemorrhage into the mediastinum. In the case of Admiral Vastenaer, observed and recorded by Boerhaave, the rupture occurred during an effort to vomit directly after a meal. The lower portion of the œsophagus gave way at an ulcerated point, and the contents were discharged into the thoracic cavity.

The *symptoms* of a rupture of the œsophagus are as follows: A severe pain suddenly supervenes in some portion of the œsophagus during vomiting or some movement requiring powerful physical exertion; at the same time there is vomiting of blood; with a sense of great anxiety and dread on the part of the patient, a result of the escape into the mediastinum of blood and air, and sometimes of the contents of the stomach; the extremities become cool; collapse and syncope set in; and death takes place usually in a very short time. All these symptoms are quite vague, inasmuch as they only point, in a general manner, to the existence of some severe malady, without indicating its particular seat or determining its exact nature. Auscultation of the act of deglutition throws more light upon these obscure phenomena. When a patient with a ruptured œsophagus swallows a mouthful of liquid, it can be determined by the deglutition-sound that the bolus descends to a certain point only. This point, according to Hamburger, is the opening of rupture. Not infrequently a slight whistling sound is also heard on swallowing. "This takes place only when the rupture is large enough for the liquid bolus to pass through it. If the opening is too small, there is no communication, and the rupture is latent." Auscultation, however, is only of questionable value, for the patient is usually so far advanced in collapse, by the time of the surgeon's arrival, that it is impossible to auscult the act of deglutition. When auscultation is undertaken, but a small quantity of water should be swallowed at a time, and the experiment should not be repeated often, lest the frequent deglutition enlarge the rupture.

The *diagnosis*, according to Von Oppolzer, can be determined only when a severe pain suddenly occurs in the course of the œsophagus during the act of vomiting, and from that moment ingesta are no longer vomited, but simply blood in greater or less quantity; and when, in addition, earlier manifestations had already pointed to the existence of disease of the œsophagus. The diagnosis would be confirmed, if on auscultation the deglutition-sound should vanish at some particular spot along the course of the œsophagus.

The *prognosis is unfavorable*, the rupture almost always, if not always, terminating fatally.

The *treatment* consists in forbidding the swallowing of food or drink, in the hope of promoting adhesion of the edges of the rupture. Thirst is to be relieved by keeping bits of ice in the mouth, or sucking slices of orange. Ice may be applied externally. Soups, yolk of egg, and other nutritious substances must be administered by injection.

PERFORATION OF THE ŒSOPHAGUS.

Perforation of the œsophagus is distinguished from rupture by the slow and gradual production of the solution of continuity, and its occurrence only in cases where the coats of the œsophagus have been already diseased for a longer or shorter time. The perforation may take place from within outwards, or from without inwards. From within outwards, by the retention of spiculated bodies; by the deglutition of corrosive substances; by ulceration, inflammation, abscess, gangrene, cancerous disease, in so far as these affections penetrate into the substance of the organ: from without inwards, chiefly from peri-œsophageal abscess; from cheesy degeneration and purulent destruction of lymphatic glands near the œsophagus; from aneurisms, caries of the vertebræ, abscess of the trachea or the adjacent lungs, cavities in the lungs, gangrene, cancer of the lung, purulent pleuritic exudation, etc.

The perforation may occupy any part of the œsophagus, but is usually found in its thoracic portion. The opening is either single or multiple; in form either irregular with torn and readily-bleeding edges, or round with sharply-defined edges, similar to those of gastric ulcer. If the perforation has occurred from within outwards, the mucous membrane is torn to a greater extent than the muscular coat; the reverse is the case when the perforation has occurred from without inwards.

A perforation having taken place, the contents of the œsophagus, and air with them, especially on swallowing, escape into the surrounding connective tissue, or into the mediastinum, or into an organ which has previously contracted permanent adhesion to the œsophagus at that point,—as the trachea, primary bronchi, lungs, pleura, and pericardium. As a further result of

this escape of matters from the œsophagus, we may have inflammation, suppuration, and sloughing of the tissues into which they have been discharged. In this connection we also have erosion of large or small vessels, and, as a consequence, hemorrhage, which may often be fatal.

The communication of the œsophageal perforation with the adjacent organs may be direct, or by means of a longer or shorter, straight or tortuous fistula.

The *symptoms* of perforation of the œsophagus are not infrequently involved in obscurity, owing either to the cause of the perforation, or sometimes to its locality. In general, symptoms of disease have preceded it, pointing to inflammation, ulceration, stenosis, or compression of the œsophagus. Only occasionally does it occur that an ulcer of the œsophagus perforates that organ without having given rise to any previous symptoms; as in the cases of Copland and Von Bamberger.

The moment at which the perforation itself is made is usually indicated to the patient by a more or less severe pain, or a sensation as if "something had given way" inside; by vomiting of pus or blood, or so-called tuberculous slough; by a feeling of anxiety, oppression, or a sense of suffocation. Sometimes the moment of perforation is altogether unnoticed. Dysphagia suddenly ceases upon the occurrence of perforation, so as to give fresh encouragement to the patient, and also to the physician if he has had no experience in these cases. The œsophageal sound, the passage of which was attended before with great difficulties, now passes readily as deep as you will; especially when the pleura or pericardium has been perforated (Hamburger). The auscultatory phenomena are similar to those already described in connection with rupture of the œsophagus.

The symptoms following perforation vary with the seat of lesion, and the organ with which the œsophagus is in communication. If the perforation is in the cervical portion of the œsophagus, a tumor is formed, with subcutaneous œdema which not infrequently extends beyond the shoulder. The tumor feels puffy, as a rule, and, after a longer or shorter time, usually ulcerates, under which circumstance a fistula is formed, out of which, as soon as it has broken through externally, the food that is swallowed comes to the surface.

If a communication has been made between the œsophagus and the posterior mediastinum, there is severe pain in the depth of the chest; dyspnœa; more or less manifestation of fever; subcutaneous emphysema, spreading from the upper outlet of the thorax over the neck, face, and often over the upper extremities, and the entire trunk.

If the communication is with the pleural cavity, whether the perforation have proceeded from the œsophagus or from the pleura, there are symptoms of pneumothorax, and pleuritis.

If the trachea is penetrated, or the lungs entered, then, on auscultation of the liquid bolus, a metallic gurgling sound is heard at the point of perforation, and severe cough and suffocative paroxysms occur at the moment of deglutition, the liquid being propelled outwards through the mouth and the nose. If the communication be due to abscess of the lung, or a vomica, the symptoms will be a sudden and more or less copious discharge of pus or tuberculous slough. Similar symptoms follow perforation into the œsophagus from purulent pleuritic exudation.

If there is a communication with the pericardium, there will be symptoms of pericarditis for a longer or shorter time, and, in addition, symptoms of pneumo-pericarditis,—accumulation of air and fluid in the pericardium.

If an aneurism ruptures into the œsophagus, there is profuse hæmatemesis, rapidly followed by death.

The *prognosis* depends on the cause of the perforation. Most cases terminate fatally, and, according to Vigla's statistics, at a period varying from four days to six months. Recovery takes place, as a rule, only by the opening of an abscess in the œsophagus, and by its rupture externally.

The *treatment* requires the forbidding of attempts to swallow. Food must be administered by the stomach-tube, a procedure which requires special skill and caution, to avoid engaging the tip of the instrument in the perforation. If the use of the stomach-tube is, for one reason or another, impracticable, we resort to nutrition by means of enemata. For the relief of thirst the same measures are recommended as have been mentioned in connection with rupture of the œsophagus.

The secondary effects of the perforation, as well as its primary cause, require the employment of treatment in accordance with their therapeutic indications.

Mycosis (by Debove: *Le Mouvement Médical*, October 12, 1872).—This very interesting case concerns a man forty-two years of age. It was noted during the life of the patient that he had, while living in Cayenne, contracted intermittent fever, which had, however, disappeared upon his return to France. It was also noted that he had received, in the beginning of the year, a contusion of the shoulder.

In March he observed that his right breast was swollen, and that the left one soon became similarly affected. They increased in size, and the patient was sent to the Hôpital Saint-Louis (service of M. Bazin).

On his admission, tumors were observed in the hairy scalp, and in the parotid regions; the former were of the size of an egg, the latter were as large as the fist. The surface of one of those in the parotid region was ulcerated. On the body the tumors varied from the size of the fist to that of a marble; the hair on the surface over them had fallen out. If the statements of the patient be believed, the tumors when they first appeared resembled maculæ, and a certain number of them had disappeared spontaneously. The sub-maxillary, the cervical, the axillary, and the inguinal glands were enlarged. The glandular enlargement did not bear a direct proportion to the size of the tumors; for the glands of the groin were especially large, and yet in the leg the tumors were few in number and of comparatively small size.

The various internal organs, excepting the spleen, which was slightly enlarged, were in a healthy condition. The blood presented nothing abnormal. M. Bazin stated that the symptoms pointed either to mycosis or to syphilitic manifestations. But, in the absence of the lichenoid eruption which usually accompanies mycosis, M. Bazin decided upon the latter diagnosis, and prescribed the biniodide of mercury, which, however, had soon afterwards to be stopped.

Oppression in breathing occurred. The tonsils were swollen and ulcerated. In August the tumors rapidly disappeared, and the patient's face again presented a natural appearance. But the pulmonary embarrassment persisted; the patient lost all desire for food, and failure of strength became more and more marked. He finally died. Examinations of the blood, made at various times, never revealed an increase in the proportion of the white corpuscles. At the autopsy, made on the 28th of August, the spleen was found enlarged. The liver and all of the other organs were healthy. The lymphatic glands, congested in some places, had undergone follicular hypertrophy. In a word, the same lesions were present as have been observed by MM. Malassez, Gillot, and Landouzy.

The present case differs in the absence of the lichenoid eruption, and in its course, from those previously reported.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, MARCH 8, 1873.

EDITORIAL.

CURIOUS INCONSISTENCY.

A RECENT number of the *Wheeling Daily Intelligencer*, handed us by a friend, contains an account of what seems to us a remarkable transaction.

It appears that the Board of Commissioners of Ohio County, in which the city of Wheeling is situated, had advertised for bids, on the part of physicians, for "attendance on the poor, examinations of lunatics, and post-mortem examinations in case of medico-legal investigations, to be awarded to the lowest bidder by the year." At a meeting of the Board held February 3, a communication, justly setting forth the disadvantages of this method of securing public professional services, and signed by eighteen physicians, was presented, and laid on the table. But the very next item in the reported proceedings of the Board was the presentation of three proposals, two of them from gentlemen whose names were appended to the memorial. And one of these bidders, who offered his services for $350, was actually elected to serve at a salary of $500, the latter being the sum allowed by law.

Why the Board advertised for bids, when there was an ordinance fixing the amount of compensation for the duty; why the doctors offered to serve at a lower rate of pay, in the face of their own remonstrance against the very proposal to them so to underbid one another; and why the Board, having sought and received overtures for the undertaking of the work at a low price, should have elected one of the highest bidders to do it at an even higher salary,—all these points are beyond any arithmetic we have as yet been able to bring to bear upon them.

HEALTH OFFICE RETURNS.

THE profession in this city will be glad to know that the Board of Health will hereafter issue, in a creditable form, a weekly return of the deaths and interments reported to them. Besides the general statement of the assigned causes of death, the proportion in each ward, the nativities, the comparative weekly mortality, and the meteorological observations taken at the Signal Office in the Chamber of Commerce, will be presented. This is a matter in which we have hitherto been liable to unfavorable comparison with London, Boston, New York, Baltimore, and other cities.

Our Health Office, although it might by suitable legislation be rendered an agency of far greater usefulness to our rapidly increasing population, has been for some years past in excellent hands. The Board is composed of gentlemen of intelligence and high character, and its officers have shown both judgment and energy in their performance of duty. We think that all our physicians who have come in contact with Mr. Addicks, the Health Officer, or Mr. Chambers, the Registrar, can testify to their uniform courtesy and promptness in dealing with matters brought before them.

We trust that at no distant day the subject of the law concerning the administration of sanitary affairs in this city will come before one of the influential medical societies,—perhaps be made a matter of joint action,—and that the result will be an increase of the powers now vested in the Board of Health, so that it can more efficiently carry out the objects of its existence.

A SINGULAR AFFAIR.

ALLUSION has several times been made in our columns to the subject of apparent death, and the fear of premature interment which is so generally entertained. We do not believe that there is the slightest ground for this fear, if ordinary precaution is observed; and we note the following case, from the New York correspondence of the *Public Ledger*, as an instance of the neglect by which such frightful accidents may be brought about:

"A colored servant-girl, named Carrie Johnson, to all outward appearances died on Friday morning last

February 21, 1873, at No. 33 Morton Street, and later in the day a permit was granted to convey the body to the Morgue. The driver of the dead-cart, however, discovering that portions of the body were still warm, sent for a doctor, who at once began efforts for resuscitation, and these proved successful, the girl returning to conciousness soon afterwards. She is now, apparently, as well as ever."

It does not appear whether or not the girl had any medical attendance, or what was the supposed cause of her death; nor is it stated that any physician's certificate was required in order that the permit should be issued for removing the body to the Morgue. It must, however, be considered very strange that the first person to entertain any suspicion of a mistake was the driver of the cart. If no professional opinion was obtained as to the actual death of the girl, there was gross neglect on the part of her "friends;" if any physician did certify to this, he must be held to have failed either in the care or the skill which was demanded in the premises. The matter seems to us, on public grounds, to call for investigation.

LEADING ARTICLES.

RECENT IOWA LEGISLATION CONCERNING INSANE HOSPITALS.

THE gentlemen of our profession who have devoted their lives and labors to the treatment of insanity have recently experienced an additional, if not wholly novel, sensation. The sanguine may have imagined that their cup of obloquy and reproach was already filled. Charges of corruption had long become familiar as household words. Indeed, the public seemed to fancy that they should bear maligning as sweetly as the proverbial eel bears skinning, and have as little right to complain. If we have fished in the mud for an illustration, it is not without fitness, since the foulest of mud is thrown at decent men by people who have only the muddiest notions of the subject on which they dogmatize. Concerning typhoid, or cholera, or pneumonia, the average layman does not, as a rule, assume to know better than his physician. He seldom proclaims in the streets that his phthisical neighbor is the victim of conspiracy, between relations and the doctor, aiming at his destruction. He does not commonly accuse a reputable physician of seeking with fiendish ingenuity to protract the acute endocarditis of a patient into permanent invalidism. But let another neighbor be taken to an insane hospital,—and it shall be marvellous to behold how our goodman rises to the occasion. His speech is oracular and dogmatic. He is hampered by no doubts of his ability to judge and determine the matter, nor of his call so to do. No false modesty, no absurd scruples as to meddling, seal his lips or stay his hands. No perception of delicate distinctions, no respect for the wisdom of experts, no conscious ignorance of facts or principles, troubles the supreme complacency with which he utters his belief. When his opinion conflicts with that of physicians and friends, the boldness with which he supports it amounts almost to moral grandeur. Fraud, conspiracy, bribery, hatred, and cupidity, are the charges hurled at all who differ. The friends of the victim may have led decent lives and enjoyed good repute. They may never have been even suspected of robbery, murder, or rape. They may even have been deemed kind, amiable, and upright in their families and in society. The physicians, too, may have been credited with some share of respect and esteem as honorable gentlemen. But what is all this to Mr. Smith who believes Mr. Brown to be sane? Either his pride of opinion, or the fair fame of other men, must be sacrificed: and how can a free and enlightened American citizen hesitate for an instant?

Sad as this popular prejudice and suspicion are; hard as it is for medical men to bear outrageous calumny and reproach; harmful as have been the results, in depriving the insane of early hospital treatment, and in causing distrust and disregard of the physician's advice,—it is only within a year or two, and in one State, that a legislature has been so misguided as to pass a law whereby the management of its own asylum is to be shaped by the current ignorance, prejudice, and fanaticism of the day. By this act a blow is struck at the whole modern system of caring for the insane,—a system which is the result of nearly a century of philanthropic labor and study, marked by steady progress in all means of cure and comfort. For, inasmuch as no man with a proper self-respect could consent long to hold a superintendency hampered by conditions so degrading and mischievous, such positions would inevitably fall only to the inefficient or the incompetent.

The law in question is entitled, with exquisite unconscious irony, "An Act to protect the Insane." It was passed in April, 1872, by the General Assembly of Iowa.

Section I. orders the appointment by the Governor of a Visiting Committee to visit the Insane Asylum "at their discretion,"—a later section

ordering the visitation to be at least monthly. Power is given "to send for persons or papers and examine witnesses on oath, to ascertain whether any of the inmates are improperly detained in the hospital, or unjustly placed there, and whether the inmates are humanely and kindly treated, with full power to correct any abuse found to exist." It is added that any injury or abuse proved shall be treated precisely as if committed outside the hospital. "The testimony of patients shall be taken and considered for what it is worth." No asylum employé is allowed on the jury trying such cases. The Committee is vested with power to discharge any officer or attendant found guilty of abuse. An annual report to the Governor is required.

Section II. orders the keeping posted in every ward of the asylum the names and addresses of the Committee. Every inmate must be allowed to write when and to whom he or she pleases. The superintendent is required to forward all letters, either to the party addressed, or to the Committee "for inspection before [being] forwarded." "Any member of this Committee who shall neglect to heed the calls of the patient to him for protection, when proved to have been needed, . . . shall be discharged by the Governor."

So far as the ends sought in these sections are good, they were already provided for. Every hospital for the insane in this country, either State or corporate, has its regular board of trustees, managers, or directors. These are, almost without exception, appointed on the ground of high character and social position. In many cases, some of them, if not all, are the picked men of the community, universally considered as above suspicion. As if ashamed to require by law, of such men, duties which their own consciences would enforce, this Legislature thrust upon and over them such a committee as is here provided for.

No provision is made for determining the questions sure to arise under the second section. In fact, it may serve as a tolerably fair example of the *reductio ad absurdum*.

Section III. obliges the superintendent to provide stationery, etc., once a week to all who ask it. A proviso follows, which, in somewhat dubious and ungrammatical phrase, empowers the Committee to suspend or take away these epistolary privileges. How is this reconcilable with the requirements of the preceding section?

Section IV. requires the superintendent to forward the weekly letter unexamined and duly stamped.

Section V. orders the delivery to patients—and also unexamined—of all letters directed to them: *provided*, these come through the Committee.

Section VI. orders coroner's inquest in all cases of "sudden and mysterious death." Whose judgment is to decide as to these characters in each case of death, is not stated,—an omission which becomes important in connection with the pains and penalties next prescribed.

Section VII. ordains that failure to comply with, or wilful and knowing violation of, "any of the provisions of this Act, shall upon conviction thereof be punished" by imprisonment under three years or fine under $1000, or both, at discretion of the court, "*and by ineligibility for this office in future.*" Testimony, sane and insane, to be "taken and considered for what it is worth."

Section IX. allows the members of the Committee five dollars a day for time spent in visiting the hospital, with mileage as given to members of the legislature. We can fancy the pleasurable alacrity with which the "disbursing officer of such asylum shall pay the per diem and mileage" upon certificate of each member of the miles and days consumed in his philanthropic mission:

> "What! pay the dentist, when he leaves
> A fracture in your jaw?"

The last section orders that "This Act, being deemed of immediate importance, shall take effect from and after its publication" in certain designated papers. By such publication this extraordinary fruit of prejudice and folly became the law of Iowa in forty-eight hours after its approval by the Governor.

It may be not uninteresting to give, in a subsequent article, some account of the means and influences which procured this remarkable legislation, and to set forth its tendencies and its practical working.

PHOSPHORUS.—The *Druggists' Circular* says: Dr. Radcliffe has recommended the following formula for gelatinized phosphorus pills:

"Phosphorus	6 grains.
Suet	600 "

"Melt the suet in a stoppered bottle capable of holding twice the quantity indicated; put in the phosphorus, and when liquid agitate the mixture until it becomes solid; roll into three-grain pills and cover with gelatin. Each pill will contain nearly $\frac{1}{33}$d of a grain of phosphorus."

The following formula by Soubeiran of a "potion phosphoré" is given by Dorvault as the best method of administering phosphorus internally:

"Phosphorated oil	8 parts.
Gum arabic	8 "
Peppermint water . . .	100 "
Syrup	60 "

Make an emulsion."

CORRESPONDENCE.

LONDON LETTER.

[*From Our Own Correspondent.*]

The Case of the Emperor Napoleon III.—The Scientific Question involved—The Ethical Question—Private History of his Illness—Consultations—The Operation and Post-mortem Examination—Uræmia the Cause of Death—Sir William Gull's Postscript—Opinions of the London Profession—Forthcoming Report—The Societies—Arteriosis in Bright's Disease—New Presidents.

LONDON, February 13, 1873.

THE chief subject of discussion in medical circles in London since the opening of the new year has been the circumstances surrounding the death of the Emperor Napoleon III., and the course pursued by the principal medical attendants. There are two aspects of the question, both interesting to medical men, not in London only, but in all countries. The first is scientific, the second ethical.

The sudden death of the Emperor, the character of the previous reports, and the statement of the post-mortem conditions, raised at once the question whether the case was one in which any operation should have been performed, and, if so, whether the selection of lithotrity in place of lithotomy was judicious. The elements for judgment were briefly these. The Emperor was a man of shattered constitution, past the middle period of life. For some years he had been suffering severely from symptoms correctly diagnosed two years before as those of calculous pyelo-cystitis. You will have seen the very clear and explicit "consultation" drawn up by M. Germain Sée, shortly before the outbreak of the Franco-German war, after an examination of the Emperor by himself, Conneau, Corvisart, Nélaton, and Ricord. It has been published here and in France, and, I dare say, has reached you before this: in case it has not already been laid before your readers, I enclose a copy of it. The medical advisers of the Emperor were, therefore, at this time perfectly aware of the probable existence of stone, but the Emperor himself was extremely averse to entertaining that opinion, and most unwilling to submit to examination, which indeed was at that time a political impossibility. To quote the words of an illustrious personage in describing his position and feelings on the subject, "he was aware that in France, especially in the then state of parties, to be ill and physically incapable of guiding state affairs was more dangerous and a greater offence than to commit any kind of political or moral error."

Moreover, as the pain which he suffered was, as is often the case, chiefly localized in the rectum, the Emperor persisted throughout in believing that his chief trouble was from hemorrhoids. Thus he started for Sedan without defining his physical condition. The subsequent disasters, and the state of political uncertainty into which the affairs of France were thrown after the peace and following upon his release from Wilhelmshöhe, prevented him from adopting more than palliative measures. During the autumn of 1872 he was seen not only by his private attendants, but by Sir James Paget, M. Nélaton, and Sir Henry Thompson. He was suffering from constant pains in the rectum and extreme irritability of the bladder. M. Nélaton did not even think it wise to introduce a sound. It was only on the second visit that Sir Henry Thompson was allowed to sound the Emperor. He then ascertained at once the presence of a large stone, and the urgent necessity for an operation to remove it was so clear as to admit of no question. As to the choice of operation there could be but little doubt. Sir James Paget expressed his entire concurrence in the selection of lithotrity, in a letter which he wrote to a friend in Paris and which was published in the Paris papers. To have cut a patient with such a condition of bladder at that age, and with an amount of kidney-disease which could not be ascertained, would have been an act of the highest surgical rashness. The stone, it was evident, was phosphatic, and hence by its softness lent itself to the operation of crushing. The successive sittings were followed by extreme irritation, violent tenesmus and rectal pain being the most troublesome symptoms. The sittings were in themselves satisfactory, and the stone, as the post-mortem showed, was dexterously handled,—one-half being quite crushed away, while the rest had been left intact, a mode of manipulation which is of course clearly the best, as leaving fewest fragments at a time in the bladder, but by no means easy to compass. The rapidity with which one sitting followed the other has been criticised, but the reason for it was that it seemed necessary, to remove obstructing particles of calculus, and that after each sitting the previous irritation was diminished. In this respect the Emperor's condition was satisfactory on the day before his death. There were, however, signs which afforded reason for uneasiness. Chief of these was a suspicious drowsiness: this was particularly marked on the night before his death. It had created the suspicion of slight uræmic poisoning for some days; but there were other circumstances which suggested a more hopeful view. The urine was of good specific gravity, 1020, and, although the Emperor slept heavily on the night before his death (a slight opiate having been administered to relieve irritation), he did not sleep with the drowsy stupor of an uræmic and poisoned brain: he dreamed distinctly and vividly, and recounted next morning with vivacity the scenes through which he had passed, and the incidents of his nightly vision. Mustard-plasters had been applied to the loins, but these he would not allow to stay on long. The morning of his death, as you know, passed quietly and favorably. He was visited by his medical attendants, and expressed himself as feeling more comfortable than for days past; and a further sitting was to take place at noon. Before going in to their *déjeûner*, Sir Henry Thompson and Mr. Clover, the chloroformist, who had slept in the house, entered the room to pay a short visit, and found, to their surprise and grief, that a sudden change had occurred and that the nurse was about to summon them. The Emperor was comatose and nearly insensible; the pulse imperceptible, and breathing stertorous. The dangerous state of things was immediately seen. Baron Corvisart was

summoned, and the members of the imperial family. In about a quarter of an hour he was dead, never having rallied or regained consciousness. He was not speechless, but in faint muttering delirium.

The post-mortem disclosed, as you are aware, a considerable amount of kidney-disease, the ureters dilated to the size of the aorta, and the tissue of the kidneys atrophied; what was left being, however, tolerably healthy. Of the interpretation of the case and its issue no educated physician or surgeon here entertains now, I think, any doubt. It was distinctly a case, such as we all know, of uræmic poisoning. The bladder was uninjured by the lithotrite; there were no abscesses in its vicinity; the shock of the operations and the communicated irritation to the kidneys had arrested the function of that part which was left of them, and which previously had been carrying on the work of excretion. With so much of disease, a little is enough to disturb the balance. There has been some misapprehension and some reproach by non-medical writers as to the statement in the post-mortem report, that the extent of the kidney-disease could not be ascertained during life. Medical men, however, well know that where the disease of the kidney is atrophic and not primary, but secondary to increased backward hydraulic pressure from an obstructed bladder; and where the urine is loaded with the products of vesical inflammation, the ordinary means of diagnosis are baffled; and, much as it may be regretted, it is indeed true that the amount of kidney-disease cannot be ascertained in such cases.

So much as to the scientific aspects of the case, on which, however, possibly some further light may be thrown when the full details are published, as they presently will be over the signature of Dr. Corvisart, Sir Henry Thompson, and Sir William Gull.

The ethical question raised has been owing to the course pursued by the latter physician in appending to the short post-mortem report officially signed a note of his own, raising a doubt or expressing a separate opinion as to the etiology of the stone. The report seemed to intimate that the bladder-symptoms were probably secondary to the phosphatic calculous formation. The stone, however, was one of very rare structure, almost as rare as is cystic oxide calculus. This had been pointed out by Sir Henry Thompson to his colleagues, and the etiological questions connected with it had been discussed. (It has since been placed in the hands of Prof. Williamson, F.R.S., of University College, for analysis, and we shall have a minute account of it hereafter.)

The post-mortem was performed, in the presence of all the medical men concerned in the case, by Dr. Burdon-Sanderson, F.R.S., selected for his eminence as a pathologist. Sir William Gull was present at the post-mortem, which occupied three hours, but begged to be allowed to leave when his colleagues were about to draw up the report, as he had to proceed from Chiselhurst to London to take the chair that night at the Clinical Society of London, it being the last sitting of his year of presidency. He requested, therefore, that the report when concluded should be forwarded to him in the evening for signature. This was done; and it was on reading the report sent to him, apart from his colleagues, that he added, without consultation with them, the postscript which has been so much criticised. It is generally held that, although unobjectionable in itself, the addendum was open to objection as raising a point of purely etiological interest unnecessarily, at a moment when no such discussion was called for, and in the presence of an uninstructed public, who could only view unfavorably any kind of dissent, on however small a point, and who could not enter into any such discussion, but could only conclude that on some abstruse point Sir William Gull either was or thought himself wiser than his colleagues. Such departures from professional regard for the mutual good understanding and equality of respect which should prevail among medical men are naturally regarded with great jealousy and disfavor; and the higher the position of a medical man the more he is held bound to afford an example of scrupulous delicacy and generous self-abnegation, if necessary, in his dealings with his professional brethren. I do not remember ever to have met with an instance in which professional opinion has been more strongly aroused; and, although the offence is one which is too impalpable to be easily dealt with, and too easily explained as due to inadvertence to be officially noted or condemned, the well-understood and universal opinion of the profession has placed Sir William Gull on a lower pedestal than he occupied before. The public, however, are but little affected by such verdicts; and such is the popularity of this very accomplished physician that he will suffer nothing in his material interests. It still requires an appointment of three weeks' date, commonly, to secure his services, and no peer, bishop, or cabinet-minister can die respectably without his assistance. The profession also, recognizing his many high qualities, will not fail to restore him presently to favor. But it will be long before this slip is forgotten.

Scientifically, in London we are still occupied in discussing Dr. George Johnson's views on "arterio-fibrous degeneration" in Bright's disease, which he declares to be a figment of the microscope, and due to the use of glycerin in mounting the preparations. A committee of the Royal Medical and Chirurgical Society was nominated to examine the preparations and give judgment, but they have for the most part declined to act, on the ground that to obtain a solution would require more time and research than they are able to give to the subject. A new committee will have to be appointed.

Mr. Prescott Hewett has been nominated as President, for this year, of the Clinical Society of London. He is a favorite surgeon of the aristocracy, senior surgeon to St. George's Hospital, and highly educated in surgery and in the arts, but not much given to professional amenities, and his election was rather a tribute to his hospital than to himself. Sir William Jenner, at this moment the most respected and perhaps the ablest practising physician we have, is the new President of the Pathological Society; and the veteran Dr. C. J. B.

Williams—"Alphabet Williams"—is to be the new President of the Royal Medical and Chirurgical Society.

I must reserve further news for my next budget.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

AT a conversational meeting held January 22, 1873, at 8 o'clock P.M.,

Vice-President H. H. SMITH in the chair,

Dr. H. H. SMITH, with the view of drawing out the experience of the members present, called attention to the prevalence of pneumonia and erysipelas during the last few weeks. He could not say that it was epidemic; but several cases of pneumonia had been seen by him, and he had heard of others among his friends in the district between Market and Lombard Streets and west of Tenth Street. These cases were attended by marked typhoid symptoms and had terminated fatally in a few days. He had also seen some erysipelas of a typhoid character, one case of which had terminated in extensive sloughing and death.

Dr. HAMILTON said that the desire expressed by the chair to hear the opinions of members present on the subject of the prevailing pneumonia was well timed. The disease, according to the weekly reports of the Board of Health, has been much more than usually fatal. Including, as may properly be done, the deaths from congestion of the lungs with those from pneumonia, we have for three weeks past a total larger than that of the deaths occasioned by phthisis.

This was, to his recollection, an almost unexampled prevalence of disease of the respiratory organs in this city, and deserves the careful scrutiny of the profession to determine the agencies, whether zymotic or otherwise, influential in producing it. He had not had a well-marked case of pneumonia in his own practice, and was, therefore, anxious to learn what had been the experience of other gentlemen, and desired especially to learn to what extent the congestive element had complicated the disease. Many years ago, pneumonia in a low form caused a large mortality, and was then, and has been since, returned as "typhoid pneumonia." May not the present malady be of this type, and, if so, its congestive character be conceded, since an examination of the history of nearly every epidemic of acute disease productive of great and sudden fatality establishes the existence of this element, potential for evil?

In reference to the influenza or catarrhal affection now so widely prevalent, Dr. H. had observed an unusually large number of protracted and obstinate attacks; he believed, as a rule, that inflammation of the nasal and respiratory passages was more than usually frequent, in comparison with that of the adjacent organs.

In regard to erysipelas, he had seen but a few mild cases; and if the disease prevailed so extensively as some supposed, it must be of a favorable character, as is negatively but conclusively shown by the weekly returns of the Board of Health.

Dr. R. BURNS had seen, in the northern portion of the city, a number of cases approaching pneumonia, characterized by a congestive condition. The respiratory murmur was subdued,—no crepitus perceptible; pulse depressed; the fauces so tender as to produce difficult deglutition; eyes suffused with coryza; aching of the limbs and lumbar region, with much uneasiness, headache, loss of appetite, and chilliness, although the skin felt feverish. In these cases, although the fauces were much inflamed, and there was very often tenderness and swelling of the cervical lymphatic glands, yet the tonsillitis did not proceed to suppuration. He considered these cases as influenza, and thus far had observed no true pneumonia, nor had he seen any cases of death from this disease.

The treatment he had used consisted in hot mustard pediluvia, and a diaphoretic draught, to be followed in an hour with hot lemonade. After free diaphoresis there was generally amelioration of all the symptoms in a short time, when ten or fifteen grains of quiniæ sulph. were given, and convalescence ensued. He had not met with any erysipelas.

Dr. ASH remarked that he had been attending a larger number of cases of tonsillitis than usual at this season of the year, also some erysipelas. With the present improved treatment of this disease, however, the mortality has been greatly reduced.

Dr. DEAL had seen no erysipelas in Kensington district, but in the central portion of the city he had seen much more than usual. He had seen a good deal of influenza in Kensington.

He had seen no tendency to traumatic erysipelas in the small hospital with which he was connected, although there had been quite a number of operations.

Dr. WITTIG had seen, in a boy eleven years of age, a case of erysipelas, ushered in by headache and its peculiar fever. It commenced on the nose, and extended to the right cheek and orbit, bullæ being formed on the surface. His grandfather had died a year ago from the same disease, treated by stimulants and tonics according to the new method. Dr. W.'s treatment was to give simply the neutral salts, together with the neutral mixture, and purgatives, and to cover the affected parts with aromatic herbs.

He had also had two cases of pneumonia affecting the lower part of the lung. Nitre, tartar emetic, and muriate of ammonia internally, together with an occasional dose of acetate of lead and opium; externally, unguent. iodinii, constituted the whole treatment.

He remarked that in cases of rheumatic pneumonia the lower part of the left lung was likely to be affected; in erysipelatous cases the lower part of the right lung was more generally attacked; while in catarrhal cases any part of the lung was liable to be affected; the congested or inflamed condition of the bronchial mucous membrane being liable to extend to the parenchyma of the lung.

Dr. J. SOLIS COHEN had not seen any erysipelas; but he had seen a few cases of pneumonia, and quite a number of cases of influenza. He believed that we had been going through a mild visitation of real epidemic influenza, a malady entirely different in nature from the prevalent catarrh so frequently miscalled influenza. His experience verified the observations of the older writers so carefully collected in Thompson's "Annals of Influenza," published by the Sydenham Society some twenty years ago. Though he had not observed all the varieties there mentioned, he had observed four special peculiarities of manifestation, sometimes occurring in different members of the same family, and traceable to the same cause. The first and most frequent form was principally catarrhal, affecting the nasal and bronchial passages and the pharyngeal and conjunctival mucous membranes. The second form affected chiefly the mucous membrane of the intestinal tract, and manifested itself by copious diarrhœa, sometimes colliquative, and sometimes attended with nausea and vomiting. The third form was cephalalgic or cerebral, and this form is said to be sometimes attended with erysipelas. The fourth form was a subacute metastatic rheumatism, with great soreness of the affected muscles and joints. All these varieties may be accompanied by intense suffering, severe fever, suppression of urine, etc. The

cases require a supporting treatment, and do well under it, the attack seldom lasting longer than a week. He had found it necessary to administer quinine in double and sometimes treble his ordinary doses, in order to produce the positive effects of the drug.

These epidemics affect animals as well as men, and it is probable that the catarrhal disorder so recently rife among horses was a manifestation of the same affection. In some epidemics the number of individuals attacked has equalled at least one-eighth of the entire population in the affected districts. He based the conclusion as to the identity of the different manifestations upon the fact that he had seen the several varieties at the same time, in the same house and family.

He stated that pneumonia in the northern and western portions of the city was chiefly of a typhoid type, though many stenic cases had occurred likewise; it had been unusually fatal, the patients succumbing in a very short time after seizure. He thought the epidemic cause inducing influenza might have something to do with the low type of the prevalent pneumonia.

Dr. STETLER said that, although his ward a year ago was severely visited by the smallpox epidemic, he was not aware, until he had come here this evening, that erysipelas and influenza were very prevalent in that locality at this time. He had seen pneumonia of a typhoid character, in which the most active stimulation, quinine, concentrated fluid nourishment, etc., had failed. He had also seen the disease in a robust man, in whom there was partial solidification, do well under cupping, calomel, tartar emetic, and Dover's powder. The so-called influenza he regarded as ordinary catarrh, due simply to atmospheric vicissitudes or the January thaw. He asked the members whether they often found pneumonia at the superior portion of the lungs in adults. Dr. STETLER referred to the fact that the Spruce and Pine Street Railroad Company lost about forty horses last year from a disease which caused the shedding of the hoofs and, of course, necessitated the killing of the animal. Those horses that were affected but did not lose the hoof remained weak and unfit for use for a long time. The cause was attributed to the laying of the planks in cement, and which, from a want of drainage, had become saturated with urine. As soon as the old floor was removed and proper drainage substituted, the horses convalesced. Strange to say, the epizoötic did not attack the horses in this stable.

Dr. WELSH had seen a number of catarrhal affections. He had seen four affected in the same family with influenza; two of them had croup, the babe diarrhœa, and the mother intermittent neuralgia, which was only partially relieved by quinine.

Dr. BURNS thought he could corroborate the remarks of Dr. Cohen, as he had seen gastro-enteric trouble, resembling an attack of cholera morbus, in a lady a few days since. He found her cold, lips and hands livid, pulse indistinct, vomiting, and abdominal pain. She had hoarseness and an irritating cough, but no pulmonary crepitus, although the respiratory murmur was indistinct and there was evidently congestion of the lung-tissue. The case was quite alarming, and more especially as she had cardiac disorder, the result of rheumatism which she had had several years previous. Bottles of hot water were ordered to the extremities and others placed near her body at different parts; sinapisms to the spine and sternum; internally, carbonate of ammonia, tincture of valerian, laudanum, and camphor-water made into a mixture, to be taken every half-hour, with brandy punch occasionally, constituted the treatment. To-day reaction has taken place and recovery seems established.

He had observed other cases in which diarrhœa has been connected with the bronchial irritation. Perhaps in these cases some idiosyncrasy was the cause of the metastasis from the bronchial to the enteric mucous membrane. These cases yielded to diaphoretic and tonic treatment similar to that stated above.

Dr. BAXTER had noticed the concurrence of respiratory and abdominal disease in several families, and could sustain Dr. Cohen in calling them different forms of the prevalent influenza.

Dr. BURPEE had seen influenza and diarrhœa in the same family. Diarrhœa seemed prevalent in children. It seems to be due to a common cold with fever accompanied with extreme depression. He gives large doses of quinine combined with capsicum. In many cases the throat and chest are affected, indicating a tendency to pneumonia. In some cases obstinate coryza was present.

REVIEWS AND BOOK NOTICES.

ILLUSTRATIONS OF THE INFLUENCE OF THE MIND UPON THE BODY IN HEALTH AND DISEASE. Designed to Elucidate the Action of the Imagination. By DANIEL HACK TUKE, M.D., M.R.C.P., etc. 8vo, pp. 415. Philadelphia, Henry C. Lea, 1873.

This admirable contribution to the science of mental physiology and pathology is addressed, says the author, to both medical and non-medical readers; and we cannot but think that the latter class will find as much to interest and profit them as the former. Dr. Tuke's style is so singularly clear, and his topic one so strongly appealing to every intelligent mind, that few will take up his book without becoming absorbed in its pages. He especially hopes that his lay readers "may be disposed to regard in a different light from what they may heretofore have done, the success of some of the fashionable modes of treatment current at the present day. Some of those, also, who are interested in the manifestations of modern Spiritualism, may find it worth their while to acquaint themselves fully, in the first instance, with those phenomena which may certainly be explained by a reference to the principles laid down in these pages."

The subject-matter of the work is arranged in four parts, comprising eighteen chapters. Part I. treats of the intellect, its influence on sensation, on the voluntary and involuntary muscles, and on the organic functions. In Part II. the emotions are discussed, and their influence on the same phenomena and agents, with a separate chapter on the question, "Do mental states, especially the emotions, act indifferently upon the several organs and tissues of the body?" The answer to this question is formularized as follows (p. 311): "While the intellect confines its operations mainly to the brain, although capable of exciting motion and the organic functions, the emotions act with by far the greatest force upon the heart and lungs, the vessels and the glands; and the will, powerless in regard to these tissues and organs, exerts its influence over the muscles engaged in the motions of the body."

Part III. is taken up with the will and its influences, and Part IV. with the influence of the mind upon the body in the cure of disease.

An analysis of the principal illustrations given in this book, a list of the principal works referred to, and a copious index, add greatly to its value.

CONTRIBUTIONS TO MENTAL PATHOLOGY. By I. RAY, M.D., Author of "Medical Jurisprudence of Insanity," and "Mental Hygiene." 8vo, pp. 558. Boston, Little, Brown & Co., 1873.

All but two of these papers have already appeared in print; twelve of them in the *American Journal of In-*

sanity, between 1836 and 1867. Several of them are analyses of murder-trials in which the plea of insanity was set up; several others are analyses of cases in which wills were disputed on the same ground. The papers on "Doubtful Recoveries," on "The Law of Insanity in Criminal Cases," and on "The Confinement of the Insane," seem to us of special interest. Another, which merits the careful study of lawyers as well as of physicians, is that on "Medical Experts."

The last three essays, on "The Insanity of King George the Third," on "Shakspeare's Illustrations of Insanity," and on "Illustrations of Insanity by Distinguished English Writers," are full of evidence of the author's profound knowledge of his subject, and of the delicacy of his powers of analysis. To the general reader, these would be by far the most attractive portions of this book.

Dr. Ray brings to his work a very wide experience, a logical habit of mind, and a pure and elegant style. We only fear that the desultory character of this collection of papers will in some measure prevent its obtaining from the profession the attentive perusal which it well deserves.

BOOKS AND PAMPHLETS RECEIVED.

The Medical and Surgical History of the War of the Rebellion (1861–65). Prepared, in Accordance with Acts of Congress, under the Direction of Surgeon-General Joseph K. Barnes, United States Army. 2 vols. 4to, pp. 1134 and 819. Washington, Government Printing-Office, 1870.

Club-Foot: its Causes, Pathology, and Treatment. Jacksonian Prize Essay for 1864. By William Adams, F.R.C.S., etc. With One Hundred and Six Wood Engravings, and Six Lithograph Plates. Second Edition. 8vo, pp. 464. Philadelphia, Lindsay & Blakiston, 1873.

Notes on Asthma: its Nature, Forms, and Treatment. By John C. Thorowgood, M.D. Lond., etc. Second Edition. Crown 8vo, pp. 166. Philadelphia, Lindsay & Blakiston, 1873.

Nineteenth Annual Report of the Medical School (Boston) of Harvard University, 1872–3. (Reprint from the Catalogue of the University.) Crown 8vo, pp. 22. Cambridge, Charles W. Sever, 1873.

GLEANINGS FROM OUR EXCHANGES.

Women and the Study of Medicine (Rector's address, by Dr. Josef Späth, delivered November 12, 1872: quoted from the *Wiener Mediz. Presse*, December 1, 1872).

In the opinion of Dr. Späth, women are intellectually able to study and practise medicine, but he thinks the great question is not in respect to their intellectual ability, but to their physical suitability for such a life. In this connection he says, "The intellectual capacity of woman cannot decide her course respecting the practice of medicine, but we must first of all consider the natural law that every creature has a particular mission to fulfil in the creation, is created for a special object; and the creature is complete only when in perfect harmony with the object of its creation.

"This law applies to man as part of creation; and it is long since established that the prosperity of society depends upon each individual's performing that part for which his peculiarities fit him. If we make but a brief comparison between the male and female being, we shall soon be able to decide whether both have the same place assigned to them, and whether both are likely to be able to perform the same functions in the same places in society.

"That the females should expect or be expected to perform duties similar to those of man in respect to the medical profession is impossible, from the delicacy of females between the ages of ten and twenty-five years. During this period their sexual life demands so much care that the student life pursued by boys and young men of corresponding ages would be too much interrupted, even if it could be endured, to make the necessary progress in scientific studies to prepare them to be physicians." This is the most practical part of the discourse. He then says, "Prudential as well as ethical motives prompt us to separate the two sexes, at the age already mentioned, to such a degree as to interfere with their studying together in the same lecture- and recitation-rooms of the university, and so far the institutions founded for women exclusively are, and can be, but superficial. Especially must I raise my voice in warning against the foundation of institutions for the education of half-physicians (*Halbheiten*), who benefit neither science nor mankind. And such are some of the institutions already established for women exclusively.

"But shall we render science inaccessible to woman, closing to her forever the secrets which science reveals?

"If the advancement of science is not the object of woman's existence, she still has a claim upon its revelations by virtue of the universal law of human rights, and we cannot refuse to impart to her all which science teaches, without an injury to humanity.

"Only by the torch of wisdom will prejudice and superstition be banished from the very nursery; an important advance, as each will admit when he recalls how difficult it is to eradicate prejudices and superstitions which have been instilled into the bosom of childhood.

"Educate women, lay before them the discoveries of science, not that they may pursue it as an avocation, but to fit them for their calling,—viz., that of educating the young, tender, and pliable beings intrusted to their care. Their dignity, their true worth, will indeed, in that event, be no less than if they were workers in the immediate field of science; for the corner-stone is no less valuable, because hidden, than the cap-stone, which sparkles in the sunlight on the gable. Men, yield not your ground. Women, do not strive against the laws of nature; for such conduct never goes unpunished. If women wish to be men, they may strip themselves of their feminine sex, but they still are not men.

"And can their dignity be augmented by such a strife? Can they obtain any advantage from it? Never! We admire the notes of the nightingale, we are amazed at the bold flight of the eagle towards the sun; but neither gains by attempting the *rôle* of the other."

Arterial Transfusion (*Berlin. Klin. Wochenschr.*, Dec. 23, 1872).—In the clinic of Prof. Esmarch, of Kiel, transfusion has been tried recently in two cases.

The first was that of a little girl 12 years old, suffering with chronic suppurative ostitis of the tarsus. Amputation was performed, followed by repeated hemorrhages. The femoral artery was ligated underneath Poupart's ligament, and, although after the ligation hemorrhage ceased, the strength of the patient did not increase, and, although she was stimulated freely, the pulse remained weak and frequent. Transfusion was immediately proposed, and 250 cub. cm. of blood from two midwives were injected into the brachial artery of the right arm. During the transfusion the patient was not under the influence

of any anæsthetic. The effects of the transfusion were instantly seen to be of the most satisfactory nature.

The patient expressed herself as satisfied, as feeling warm and hungry. Her cheeks lost their paleness and became rosy, and her eyes grew brighter. The pulse, which before the operation was weak and beating 160 per minute, fell during the operation to 136 per minute. After the transfusion the artery was ligated peripherally and centrally, and the wounded portion was excised.

In three months the patient had recovered from both amputation and transfusion.

The second case in which transfusion was tried was one of retromaxillary pulsating fibroma teleangiectaticum. Langenbeck's ergotine injection was tried, with no favorable results. Great hemorrhages ensued, partial gangrene of the tumor, and high fever. Subsequently, osteoplastic resection of the superior maxilla, with preliminary tracheotomy, was performed, accompanied by simultaneous transfusion into the brachial artery. The result was fatal. In this case the amount of blood injected was 600 cub. cm., and, as in the preceding case, some few spots of extravasated blood showed themselves upon the arm through which the transfusion was accomplished. The artificial respiration in the latter case, in which tracheotomy entered into the operation, was kept up by Trendelenburg's method.

The man from whom the blood was taken to supply the demands of the transfusion subsequently passed through a long series of sufferings on account of his loss, the history of which is promised in a future communication from the clinic of Kiel.

Extra-Uterine Pregnancy (H. Lionville: *Le Mouvement Médical*, January 11, 1873).—A woman, 33 years of age, was admitted into the Hôtel-Dieu, under the care of M. Béhier, complaining of pains in the lower part of the abdomen, and constipation. Several days after her admission the pains became more intense, and vomiting of a slightly stercoraceous character occurred. Peritonitis supervened, with a predominance of symptoms on the left side. The patient was believed to be suffering from intestinal obstruction. Death soon occurred. At the autopsy, hemorrhagic peritonitis was found with masses of blood enclosed by bands of recent formation. More careful examination revealed a tumor of some size, which, on section, was found to be composed of clots of blood and membranes enclosing a fœtus of about the sixth week. The hemorrhage had occurred around the fœtus. The ovum was situated within the peritoneal cavity, bound down on the left side, and entirely free from the ovary. M. Güeniot states that in such cases, the pregnancy being in the earlier stages, a faulty diagnosis is to a certain extent the rule.

MISCELLANY.

The funeral of the late Dr. Hugh L. Hodge took place on Saturday, March 1, and was very largely attended by his professional brethren.

At a special meeting of the College of Physicians of Philadelphia, held Feb. 28, 1873, the following resolutions, offered by Dr. A. Stillé, were unanimously adopted:

Whereas, We have heard with profound regret that our venerable colleague, Dr. Hugh L. Hodge, has died, after a very short illness, while he was still in the full possession of mental vigor and actively engaged in professional duties; and

Whereas, It is due to his memory, and is a solace to our own regret, to place on record our estimation of his character and services: therefore,

Resolved, That by the death of Dr. Hodge the medical profession has lost one of its brightest ornaments and most valuable members; a teacher whose learning, eloquence, and wisdom rendered him one of the most eminent and useful professors of the medical school he so long adorned, and of the professional literature to which he contributed the results of his matured experience and reflection; a practitioner sagacious, skilful, and wise, who to the latest day of his life devoted his powers with rare success to the alleviation of suffering and the preservation of life, and secured the affectionate veneration of all whom he served; a man who, from the beginning to the end of his career, was not only pure and without reproach, but in every relation distinguished by singular conscientiousness and an earnest piety, and by a dignity of demeanor and consistency of conduct which made his name synonymous with truth and virtue.

Resolved, That Dr. H. Lenox Hodge be requested to prepare for the College a memoir of his late father; and that the College will pay the last honors to their distinguished Fellow by attending his funeral in a body.

Resolved, That the Secretary cause a copy of these proceedings to be transmitted to the family of Dr. Hodge, and published in two of the medical journals and in the daily papers of this city.

John H. Packard, *Secretary*.

At a meeting of the graduating class of the medical department of the University of Pennsylvania, held February 28, a committee, consisting of Messrs H. Estrazulas, C. M. P. Scott, W. Preston Snyder, W. I. Baker, and John Keating, was appointed to draft resolutions expressing the sentiments of the class in regard to the death of Dr. Hugh L. Hodge:

Whereas, We have heard with deep regret of the death of the late venerated Dr. Hugh L. Hodge, Emeritus Professor of Obstetrics in the University of Pennsylvania:

Resolved, That in the demise of Dr. Hodge, we, the younger members of the medical profession, deplore the loss of a kind sympathizing friend, a model of every virtue and professional attainment which could illustrate our noble profession.

Resolved, That we sincerely condole with his afflicted family in their bereavement, and, as a mark of respect to the memory of our departed professor, we appoint a committee to attend his funeral.

Resolved, That a copy of these resolutions be sent to the family of the deceased, and that they shall also be inserted in two daily papers and in the medical journals of this city.

John G. Schenck, *President*.
William H. Rush, *Secretary*.

It is stated in the *Revue Scientifique* that the Swiss Society of Natural Science ("Société Helvétique des Sciences Naturelles") consists actually of nearly nine hundred members, besides over one hundred honorary

members chosen from among the chief scientific notables in other countries. Several of these foreign *savans* attend the annual meetings. Their presence was especially noted at the session of 1865, at Geneva, when, under the presidency of M. A. de la Rive, the Society celebrated the fiftieth anniversary, or a sort of semi-centennial jubilee, of its foundation. On that occasion there were attracted, besides an unusually large number of native members, Dumas, Claude-Bernard, Henri Deville, Descloiseaux, Martins, Lissajous, Rouget, etc., from France; Wöhler, Kölliker, Dove, Magnus, De Bary, Oppel, etc., from Germany; Tyndall, Frankland, Sir J. Lubbock, Ball, and others, from England; Volpicelli, Cornalia, Capellini, Omboni, from Italy; Steenstrup, from Denmark; and many others who might be named, from America and the East Indies,—in all, nearly a hundred foreign members having registered themselves.

During the past fall and winter, Dr. W. W. McClure, Surgeon to the Wills Hospital, and Ophthalmic Surgeon to the Presbyterian Hospital, has been delivering an interesting course of lectures on Ophthalmology in the Chant Street Lecture-Room of this city. These lectures have been very successful, attracting unusually large classes every evening; and they are especially noticeable from the fact of the oxy-hydrogen stereopticon having been employed throughout the entire course in illustration of the various points in anatomy, pathology, etc., brought before the class. The concluding lecture of the course was given on Tuesday evening, February 11, in the Chapel of St. Stephen's Church, which was filled with an attentive and appreciative audience of students and physicians.

Dispensary for Skin Diseases.—The Second Annual Report of the Dispensary for Skin Diseases, 216 South Eleventh Street, has just been issued. It states that during the past year there were 401 new patients admitted, and 2288 visits from time to time made at the dispensary. The average daily attendance of patients was 7. Of the whole number 196 were males and 205 females. The adults numbered 336, children 65.

It is in contemplation to make an effort to raise funds for the erection of a hospital building for this charity, which is at present under the following management: President, Samuel D. Gross, M.D.; Secretary and Treasurer, Henry A. Duhring; Physician-in-Charge, Louis A. Duhring, M.D.; Assistant-Physician, Arthur Van Harlingen, M.D.

Another Obstetrical Journal.—By an announcement just received, we are informed of the proposed publication, by the Messrs. Churchill, of London, of the *Obstetrical Journal of Great Britain and Ireland*, a monthly of sixty-four pages, to be under the editorial control of Dr. Aveling, of Dublin, and Dr. Wiltshire, of London.

The number of memoirs placed in competition for the "prix d'Ourches," for a test of actual death, is stated by the *Revue Scientifique* to have reached ninety; with the comment, "This 'concours' bids fair to develop more candidates than new tests."

Sir Henry Holland speaks of a nobleman who, when remonstrated with by his family for employing an illiterate physician, replied that "he thought a man who was so profoundly ignorant of everything else must certainly know a great deal about medicine."

A bill is before the Legislature of this State, looking to the examination of dental practitioners, by a Board to be appointed annually by the Pennsylvania Dental Society. Five dollars is fixed as the examination-fee, and twenty-five as the license-fee.

Dr. Thomas Maceuen, of this city, who died on the 27th ult., in the seventy-fourth year of his age, was a man of high literary and scientific attainments. He had for very many years retired altogether from professional life.

The Annual Commencement exercises of the Philadelphia Dental College were held on the 28th ult. The address to the graduates was delivered by Prof. John H. McQuillen.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending March 1, 1873, were 352; 201 adults, and 151 minors. 9 were of bodies brought from the country; making the mortality of the city 343. Among the assigned causes of death were:

Consumption of the Lungs	55
Other Diseases of the Respiratory Organs	50
Diseases of the Circulatory Apparatus	17
Diseases of the Brain and Nervous System	59
Diseases of the Digestive Apparatus	17
Zymotic Diseases (2 from Smallpox)	26
Typhoid Fever	2
Casualties	14
Cancer	7
Exposure	2
Intemperance	1
Gout	1
Debility (including "Inanition" and "Marasmus")	31
Still-born	21
Old Age	18

(The interments reported for the week ending March 2, 1872, were 436.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

	Thermometer. Max.	Thermometer. Min.	Barometer. (2 P.M.)	
Feb. 23	22.0°	11.0°	29.89 in.	
" 24	19.5	1.0	30.02 in.	
" 25	30.5	17.0	30.11 in.	
" 26	35.0	28.0	30.20 in.	
" 27	43.0	31.0	29.86 in.	(Light Snow.)
" 28	34.0	24.0	30.20 in.	
Mar. 1	35.0	24.0	30.36 in.	

The mean temperature of the month of February was 30.57°.

SATURDAY, MARCH 15, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

LECTURE IV.

(Continued from page 355.)

ŒDEMA of the larynx is a very serious affection, on account of its liability to produce suffocation. Such a result has been known to occur at the very first evidences of the attack, before there had been any opportunity of establishing a diagnosis. Hence it is essential to be able to recognize the condition promptly and to treat it efficiently, lest temporizing treatment may sacrifice a patient whose life ought to have been saved. The obstruction in breathing is at first limited to inspiration, and is caused by the atmospheric current pressing inwards the tumid folds of membrane; but, as the disease progresses, expiration also becomes impeded.

When the œdema is dependent on acute disease, the suffocative paroxysms will be abrupt, violent, and occur irregularly at intervals of a few hours. When it is the result of chronic disease, the dyspnœa gradually increases until it culminates in a paroxysm of suffocation, which passes off with more or less relief to the respiration, to recur, as the disease progresses, at irregular intervals, which steadily grow shorter, until several paroxysms occur within the twenty-four hours, being, as a rule, more violent at night than in the daytime. In sub-glottic œdema the breathing is apt to be still more noisy, much like that occurring in laryngismus stridulus.

The best treatment for œdema of the larynx consists in making incisions into the swollen tissues. This affords egress to the pent-up fluids, and generally arrests the threatening symptoms immediately. This operation may be performed readily with a long curved bistoury, protected to within a short distance of its point, and directed to the parts by the guidance of the finger upon the seat of swelling. When the laryngoscope can be employed, Gibb's or Tobold's laryngeal knife affords much greater security in operating, and in great measure obviates the danger of wounding parts that should not be cut into. The spasm produced by the operation is usually insignificant. There is not, as a rule, much blood lost; but occasionally the bleeding is profuse, requiring the most assiduous efforts on the part of the patient to expectorate the blood entering the larynx, so that, despite the relief to the general dyspnœa, the patient has to cough for his life. The external and internal application of ice for a few minutes will generally suffice to restrain any alarming bleeding. Where the bleeding is but slight, it is often to be encouraged by a warm-water gargle or the inhalation of steam. After scarification the parts as seen in the laryngoscope present a wrinkled appearance, with bloody marks of the incisions.

A second scarification in cases of acute œdema is rarely requisite, especially when the progress of the disease can be watched with the laryngoscope, so as to be combated by less serious measures; but where the œdema is the result of chronic affections of the larynx, the operation may have to be repeated frequently. If the infiltration has made progress towards solidification, as sometimes happens, this operation will be ineffective, as it is only when the effused products are fluid that they can escape through the incisions. Under these circumstances, should the urgent symptoms of the condition persist, unmodified by the local results of the scarification,—such as the hemorrhage attendant upon it, the relief of the tension, etc.,—the operation of tracheotomy should be performed. This will save the patient for the time being, and allow him eventually to recover if there has been no fatal congestion of the lungs or brain, for the operation does not always succeed in rescuing the patient. Two instructive cases of this kind, followed by fatal results, are recorded by Drs. Pitman and Page.* The impeded respiration, if the operation be delayed, will have prevented due arterialization of the blood, and have thus induced congestion of the brain; a condition from the effects of which the patient may be unable to rally, even though he survive for a few hours, perhaps days, without further impediment to respiration. To be successful, it is almost essential that the operation be performed before congestion of the lungs has set in.

The trachea should be opened in preference to the larynx, in consequence of its greater distance from the seat of the disease, as well as for the reason that the disease may be extending low down in the larynx, and therefore exist at the very point usually selected for laryngotomy. Having thus by tracheotomy saved the life of the patient, scarification of the œdematous structures may be pursued more deliberately. This will be especially necessary if the tumefaction interferes with deglutition. Under circumstances of great urgency there ought to be no hesitation in opening the trachea with a pocket-knife, if no surgical instrument is at hand, and without any dissection, the delay for which may result in the loss of the patient.

Rupturing the bladder-like swelling by a smart stroke of the finger at the moment of examination has been recommended by Prof. Stromeyer. The epiglottis, when involved, may be firmly pressed against the root of the tongue, and would be very apt to suffer rupture of its attenuated mucous membrane under a vigorous stroke of the finger.

Where scarification or pressure fails to give immediate relief, tracheotomy should be resorted to

* *Lancet*, April 21, 1860.

at once, for the disease threatens death by suffocation before any impression can be made by ordinary antiphlogistic remedies; although there are a number of cases on record that have recovered under antiphlogistic measures. Catheterization of the larynx, which has been proposed for the purpose of promoting absorption, generally fails in affording any relief. Trousseau* has recorded a severe case of œdema of the larynx which was promptly relieved by inhalations of tannin; narcotic inhalations sometimes have a very happy effect. But treatment by inhalations is very rarely applicable, and not at all so where the symptoms are urgent. In one of the cases referred to, it was not employed with the hope of a favorable result, but as a means of temporary alleviation while in quest of a scarifying instrument.

In cases of but moderate severity, where the progress of the morbid process can be continually watched by the aid of the laryngoscope, the application of ice externally, and the continuous use of ice in the mouth, will sometimes effect an absorption of the effusion, and thus avoid any necessity for the use of the knife.

The œdema which occurs during the progress of chronic laryngeal disease usually sets in gradually, rarely insidiously, and may continue for a long period without producing any suffocative paroxysms, even when the entrance into the larynx is very much narrowed by the tumefaction. It seems as if the system accustomed itself to a gradual narrowing of the air-passages on the one hand, while on the other the general ill health of the patient and the lack of active exercise appear to lessen the demand for a large supply of oxygen. Certain it is that an amount of œdema is tolerated in chronic affections of the larynx which would cause symptoms of suffocation if it occurred suddenly in a healthy subject.

The œdema is more apt to be confined to one side than in the acute variety, probably because the laryngeal affection which produces it is often one-sided. Sometimes the condition is due to disease of the laryngeal cartilages, which have undergone caries or necrosis. The cricoid cartilage and the arytænoids are the most prone to become diseased in this manner; but the other cartilages do not possess any immunity from destruction. Ryland† mentions a case in which this was consequent on an attack of glanders contracted nearly a year previously; and in which dissection after death showed that the inner layer of the cricoid cartilage had undergone ossification, had become carious, and was partially loosened. Sometimes the detached and dead portions of cartilage are expectorated in coughing, and occasionally the sequestrum has been seen by means of the laryngoscope and then removed with forceps; and if any difficulty in detachment presents itself, tracheotomy may be necessary to remove the obstruction.

Scarifications, followed by the topical application of astringent solutions, such as solutions of nitrate of silver, sulphate of copper, chloride of zinc, chloride of gold, etc., with emollient and narcotic inhalations, constitute perhaps the best treatment. Blisters and other counter-irritants rarely do good, and are often productive of injury.

Opening the trachea for the mere purpose of setting the larynx at rest in chronic affections, as formerly advised by some, is rarely justifiable; for the affection terminates in death, and the respite is hardly worth its cost; besides which, the trachea is often entirely free from disease, unless congestion is excepted, and the condition of the lungs is usually such as to be in itself productive of all the phenomena of dyspnœa and cough. Under such circumstances the operation can hardly do more than actually add to the existing evils already endangering the remnant of the patient's life.

SUB-GLOTTIC ŒDEMA OF THE LARYNX.

The opinion has long been held by pathologists that œdema of the larynx could not occur below the glottis, on account of the close adherence of the mucous membrane to the perichondrium of the cartilages below the vocal cords. On the sides of the cricoid cartilage, however, there is a certain amount of distinct areolar tissue, which is sometimes sufficiently relaxed to permit the accumulation of exudative products, these being lymph rather than serum; though serous infiltration undoubtedly occurs in certain instances. This effusion is not an extension of the œdematous infiltration already present above the glottis, and, though occasionally coexisting with œdema above the glottis, usually occurs independently of any analogous condition in the ordinary localities of œdema in the upper portion of the larynx.

Sub-glottic œdema is an exceedingly rare affection. It has been recognized as an independent affection only since the employment of the laryngoscope in medicine; and the use of this instrument affords the means of certainty of diagnosis. We are indebted to Dr. Gibb, of London, for prominently calling the attention of the profession to this subject, which he has discussed at some length in the second edition of his work "On the Throat and Windpipe."

This form of œdema is sometimes produced by acute laryngitis, and the laryngitis of erysipelas, but also occurs in the course of chronic laryngitis of phthisis and syphilis; resembling in these respects the ordinary forms of œdema of the larynx.

As this subject is one not generally understood, and as a knowledge of the existence of sub-glottic œdema would have a considerable influence upon the locality to be selected for performing the operation of tracheotomy, in case such a procedure should become necessary, it may not be amiss to call attention to the cases detailed by Dr. Gibb. Dr. Gibb has collected, in all, evidence of eighteen instances of this affection, most of the material having been found at hand in the London hospitals. He states that "it may be taken as a rule that swelling never extends farther than the first ring of the trachea."

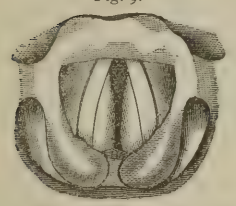
The subjective symptoms of the affection are similar to those of acute laryngitis, with those of

* Clin. Méd., Paris, 1861, p. 475. † On the Larynx, p. 42.

the ordinary forms of œdema; but the breathing is more stridulous and wheezing, and has a croupy hoarseness. There is great dyspnœa, cough, and an abundant secretion of mucus, rings of fibrinous sputa being sometimes expectorated. Symptoms of dysphagia are not manifested unless there be coexistent œdema of the upper part of the larynx, nor is there more marked stridor in inspiration than in expiration.

Laryngoscopic examination reveals projecting pads of mucous membrane bulging forward to the right and the left, below the vocal cords, and encroaching upon the transverse calibre of the larynx. (Fig. 9.)

Fig. 9.



Sub-Glottic Œdema of the Larynx.

Sub-glottic œdema is much more menacing to life than supra-glottic œdema; it is not so amenable to scarification and other topical treatment; not alone from the position of the effusion, which is below the glottis and therefore far more difficult to reach with instruments, but also because the effusion is not serous merely but fibrinous, and thus much less likely to be discharged through the incisions, even if the swelling could be scarified. The discharge of a serous effusion in the upper portion of the larynx, moreover, is assisted by the pressure exercised in the spasmodic contraction of the muscles, which follows the operation,—a result which there is no means of obtaining when the effusion is below the glottis and therefore out of the range of muscular compression. Tracheotomy is the only resource in severe cases. In cases of moderate extent and severity, the same remedial agents may be employed as in supra-glottic œdema; and from the fibrinous nature of the effusion we can reasonably expect a more salutary influence from the effect of mercurial remedies.

The deposit of sub-glottic œdema is not always absorbed, even if the patient should be saved by a timely tracheotomy; and hence it has been necessary in some cases to maintain the opening patulous by the constant presence of the tracheotomy-tube.

HEMORRHAGIC ŒDEMA OF THE LARYNX.

Hemorrhagic infiltration of the sub-mucous tissues of the larynx, to which the name of hemorrhagic œdema is frequently applied, is generally the result of some traumatic injury of the parts; giving rise to sudden and often fatal stenosis of the larynx. The hoarseness, dyspnœa, and dysphagia do not differ from those presented in the ordinary forms of œdema, but are dependent in great part on the locality and quantity of the blood effused. Sestier* relates a case in which the hemorrhagic effusion into the right ary-epiglottic fold followed upon a suicidal cut into the thyro-hyoid membrane, and caused a fatal termination by suffocation upon the fifth day after the injury.

Hemorrhagic œdema may also result from other than traumatic causes. Thus, Sestier† mentions the post-mortem appearances of hemorrhagic œdema in the ary-epiglottic folds, which occurred in the course of hemorrhagic smallpox. Rühle‡ gives a case of Pfeufer's. A man æt. 43, in freeing himself from vermin by inunction with mercurial ointment, became salivated. One evening, at six o'clock, he became chilly; and very soon after a severe cough set in, which soon acquired a croupy character. Dyspnœa set in, with stridulous respiration, and gradually increased, produced cyanosis, and suffocated the patient at eleven o'clock. Upon post-mortem examination a sub-mucous collection of blood was found in the larynx directly below the right ventricle, of the size of a quarter of an inch, and 1–3‴ thick in several places. The blood was liquid, and the mucous membrane over it was swollen. Pfeufer attributed the hemorrhage in part to the alteration of the blood produced by the mercury, and in part to acute catarrhal laryngitis.

* Traité de l'Angine laryngée œdémateuse, Paris, 1865, p. 137.

† Loc. cit., pp. 63, 114.

‡ Kehlkopfkrankheiten, 1861, p. 171.

ORIGINAL COMMUNICATIONS.

A CASE OF STRICTURE OF THE RECTUM PRODUCING OBSTRUCTION — DEATH ON THE SEVENTY-FOURTH DAY.

BY RICHARD MOFFETT, M.D.,
of Philadelphia.

W. H. S., aged 19, of slender frame, nervo-lymphatic temperament; by occupation a baker; had enjoyed average good health prior to his eighth year. At this time he suffered from an attack of dysentery, accompanied with prolapsus. The intestine had protruded to the extent of two inches. The subsidence of the disease developed a chronic torpor of the bowel, ending in constipation of a peculiar character: the stools were flattened.

After an immoderate indulgence in raw chestnuts and cabbage, the bowels became obstructed, November 15, 1871. The patient came under my charge November 20. At this time his tongue was clean and there was no febrile reaction. The abdomen was somewhat tumid, and the right iliac region was the seat of a dull aching pain. I at once ordered a two-ounce emulsion of castor oil with laudanum, and subsequently two drops of croton oil. These not producing the desired effect, they were followed by injections. These were equally fruitless. Upon the seventh day of the obstruction Dr. R. J. Levis was consulted. By his advice, tobacco-smoke enemata were given, but without any result. The rectum was explored, both by the finger and by bougies, but no obstruction was detected. The patient's appetite now became capricious; at times ravenous, it would disappear, and absolute anorexia persist for days together. The tongue now become coated, and the breath offensive. The treatment

from this time was chiefly supporting, it being deemed inexpedient to persevere in attempts to secure purgation. The abdomen growing more tense, and the pain increasing, it became necessary to resort to anodynes.

On the thirty-seventh day Dr. D. Hayes Agnew was consulted, who, with Dr. Levis, advised puncturing the abdominal wall to relieve the distention. This was done by means of a small trocar and canula, when a quantity of flatus escaped. The question of abdominal section now presented itself as a last resort to overcome the obstruction, which had been located by the consultants in the right iliac region. The fact that the obstruction had proven so obstinate without any vomiting of stercoraceous matter pointed, it was thought, to a cause situated within the large intestine, while the pain in the right iliac region indicated its position. After mature deliberation, it was decided not to operate; for were the obstruction detected at the head of the colon, it would in all probability be irremediable, even after free exposure of the parts. Upon the forty-second day, at the suggestion of Dr. Agnew, large quantities of sweet oil were injected daily. Small liquid motions, averaging half an ounce, followed each injection, and a larger quantity, in amount about the same as would ordinarily be voided at a stool, was removed about every third day. It was hoped that by this means a favorable termination of the case would be secured. But by the fiftieth day his skin, which up to this time had remained dry, was covered by a clammy secretion. The urine became scanty and high-colored, and the distention of the abdomen, which had become enormous, induced dyspnœa by the pressure upward against the diaphragm. The tongue remained thickly coated; the breath was exceedingly offensive; the pulse, which had remained throughout at the normal standard, rose to over 120, and at times was intermittent. It now became evident that he was sinking. He lingered until January 29, 1872, the seventy-fourth day, when he died of exhaustion.

Autopsy, January 31.—Present Drs. Moffett, Hunter, and Allen. Body much emaciated. The abdomen was enormously distended,—circumference thirty-six inches. The intercostal spaces of the false ribs were greatly widened: that at the sixth measured one and a half inches. The usual incision in the median line of the abdomen was made by Dr. Hunter, who conducted the examination. A large portion of the descending colon protruded through the opening. A casual examination of the abdominal cavity revealed little else than an enormously-distended colon. The sigmoid flexure was conspicuously elevated, and occupied the umbilical and hypogastric regions. It overlapped and tended to press inward the head of the colon. The splenic flexure was very acute. The circumference of the gut at this point was less than at any other. The hepatic flexure was discolored by the gall-bladder in the usual manner. The latter viscus was moderately distended with bile. The small intestine was distended its entire length. The stomach was pressed upward, but was not enlarged. The other viscera presented no features of interest. The colon upon being removed revealed a stricture completely surrounding the rectum as it lay directly below the right sacro-iliac junction. The diameter of the stricture was about four lines. Below it, the rectum was of the normal calibre; above, it presented the appearance characteristic of the healthy colon. The latter portion of the intestine was filled with fluid fæces of a dark loam color and of a fetid odor. Very little flatus was detected. The following were the measurements as recorded:

From pelvis to seventh rib, 15 inches.
From clavicle to seventh rib, 7½ inches.
Girth of abdomen, 36 inches.
Circumference of caput coli, 14½ inches.
Circumference of hepatic flexure, 12½ inches.
Spleen 4½ inches long, 2⅓ inches wide.
Kidneys 4½ inches long, 2 inches wide.

TRANSLATIONS.

VON OPPOLZER'S LECTURES ON DISEASES OF THE ŒSOPHAGUS.

Being the latter portion of the first part of the second volume of Oppolzer's Vorlesungen über specielle Pathologie und Therapie, Erlangen, 1872.

Condensed from the German of Dr. Emil Ritter von Stoffella,

BY DR. J. SOLIS COHEN.

(Concluded.)

VI.

CANCER OF THE ŒSOPHAGUS.

Cancer of the œsophagus is either fibrous, medullary, or epithelial. It is usually primitive, existing by itself; rarely consecutive, or the result of the encroachment of cancer of an adjacent organ.

Primitive cancer of the œsophagus involves, most frequently, the lower portion of the organ, in the vicinity of the cardia; but Von Oppolzer has observed it quite frequently in the thoracic portion of the œsophagus. It appears as a circumscribed disease, as a rule; occasionally, only, being extended over a great portion of the œsophagus, or even its entire length. It usually involves the whole circumference of the tube, and produces in this way an annular stricture; not infrequently, indeed, effecting complete occlusion of the calibre of the canal. Intimate inflammatory adhesions with the adjacent parts are formed within the reach of the cancerous degeneration, especially with the anterior surfaces of the vertebræ. Above the cancerous constriction the œsophagus is distended for a certain extent; below it, on the contrary, it is collapsed; a condition which occurs in all varieties of œsophageal constriction.

Cancerous disease of the œsophagus always begins in the sub-mucous connective tissue, whence it soon extends to the mucous membrane, upon which it becomes still further developed. The cancer softens, and uneven ulcers are formed, circumscribed by infiltrated borders, and covered with ichor from bleeding fungous vegetations. The diseased process extends to the neighboring organs; and the ulceration and destruction gradually acquire increased dimensions, so that communications may become established in this way with the lungs, the trachea, the bronchi, etc. At the same time, the cancerous formation may develop within the neighboring arteries, the aorta, and pulmonary artery, or

may produce erosion of the coats of these vessels by its destructive action, and thus give rise to fatal hemorrhage.

The most prominent *symptoms* of cancer of the œsophagus are those of œsophageal stenosis. Even before these symptoms attract special notice, the patient will exhibit a continuously progressive deficiency of nutrition and a loss of physical strength. He becomes emaciated, complains of debility and more or less loss of appetite, and finally acquires that appearance which is designated as cachectic. After several months or more have passed with these symptoms, difficulty in swallowing begins to be experienced, similar in the main to that observed in stenosis of the œsophagus from other causes, but increasing more rapidly to a severe degree. If the dysphagia has progressed so far as to have induced vomiting and regurgitation of ingesta, the food returned is at first mixed with stringy mucus, and at a later date with blood, ichor, and, now and then, with broken-off fragments of the cancerous formation.

There is not any pain, usually, in the earlier stages of the disease, or else the pain is very insignificant, and is confined to a slight burning sensation, or a feeling of pressure beneath the sternum, or at the pit of the stomach. Later in the case, however, and particularly after each meal, pain is felt, often of the severest lancinating character. Finally, in special cases, there are radiating pains in the upper extremities, particularly in the region of the shoulders and between the shoulder-blades, and also along the course of the intercostal spaces. If the cancer occupies the lowest portion of the œsophagus, near the cardia, painful paroxysms occur not infrequently, which can hardly be distinguished from those of cardialgia. Finally, in the later stages of the disease, when softening of the cancer and partial breaking-up have occurred, the calibre of the œsophagus will become greater, and the difficulty of deglutition will be diminished for a time.

The *prognosis* is unfavorable. There is no case on record which has not terminated fatally. The average duration of the disease has been found by Lebert to be about thirteen months. Von Oppolzer has remarked cases which have given rise to thrombosis, principally in the veins; or to secondary inflammation of the brain, or to gangrene of the lungs, thereby hastening the fatal termination.

The *diagnosis* depends chiefly on the advanced age of the patient, his cachectic expression, the slow progression of the malady, and the circumstance that it can in no other wise be accounted for. Complete and undoubted diagnosis can be made only upon the discharge of broken-up portions of cancerous matter by vomiting or regurgitation.

The *treatment* by dilating the œsophagus with sounds is advisable only in the earlier stages of the difficulty in deglutition. As soon as softening has commenced, such proceedings are dangerous, inasmuch as the softened tissues may be readily penetrated. In such cases the nourishment of the patient must depend upon so-called nutritive enemata; though they do not amount to much, because their subjection to chymification is wanting; besides which, they often induce inflammation of the mucous membrane of the large intestine. If the pain is severe, narcotics must be resorted to.

The reader is referred, in addition, to what has already been written in connection with cancerous stenosis of the œsophagus.

FIBROMA, AND FIBROUS POLYPUS OF THE ŒSOPHAGUS.

Fibroid nodules of the œsophagus occur but very rarely. They are mostly of but small size, in which case they produce no disturbances, and consequently cannot be diagnosed.

Fibrous polypus of the œsophagus is a more important affection than fibroma. Remarkable cases of this nature have been described by Rokitansky and by Munro. The fibrous polypus of the œsophagus usually arises from the perichondrium of the cricoid cartilage, and hangs down within the œsophagus. It gives rise to all the symptoms which attend constriction of the œsophagus, and, in addition, may occasion hemorrhage. If the polypus is situated in the uppermost portion of the œsophagus, it may be felt by the exploring finger, and even be made visible on retching. If it is large, it causes a projection in the neck.

The *treatment* of fibrous polypus of the œsophagus is altogether surgical.

NEUROSES OF THE ŒSOPHAGUS.

CRAMP OF THE ŒSOPHAGUS.

Cramp of the œsophagus—also called *spastic stricture of the œsophagus*—seldom or never occurs as an independent affection of the nervous plexus supplying the œsophagus; that is to say, as a true neurosis. It often occurs as a symptomatic spasm. Thus, we observe spasm of the œsophagus in diseases of the brain and spinal cord, in hysteria and hypochondria, in severe mental affections, and above all in hydrophobia, in which malady it is the most prominent symptom.

Reflex spasm, also, is no infrequent manifestation; to which category we may refer those cases of œsophageal spasm which attend diseases of the uterus, stomach (especially cancer of the stomach), heart, or lungs. In many cases the spasm is caused by disease of the œsophagus itself; as, for instance, in cases of inflammation, the formation of ulcers, etc.; and it often happens that cases of dysphagia, which are mistaken for simple spasm of the œsophagus, actually depend upon organic disease of the walls of this canal.

Symptoms. — The spasm may affect the œsophagus alone, or the pharynx likewise. It sets in suddenly, lasts a shorter or longer time, after which it disappears, to return at irregular, or, in rare instances, at regular intervals. In many cases the spasm occurs—especially when it is a symptom of hysteria —only upon the swallowing of solid or fluid substances, warm or cold; or it may be only certain kinds of food and drink that produce the spasm. The cramp is sometimes painless, sometimes painful, sometimes connected with a sensation as of a ball sticking in the throat (globus hystericus), or with a feeling of squeezing together, etc. If the upper portion of the œsophagus and the pharynx are affected with the spasm, then the food is rejected as soon as the attempt is made to swallow it. If the cramp affects the middle portion of the œsophagus, then either the further progress of the bolus is prevented, or regurgitation takes place, either immediately or after a while. Finally, in those cases in which the cramp takes place in the lowest portion of the œsophagus, in the neighborhood of the cardia, the patient can swallow, it is true, but the ingesta are very frequently regurgitated; and at the same moment the spasm suddenly relaxes.

If the spasm of the œsophagus is especially intense, or if it occurs in an irritable, so-called nervous individual, then it not infrequently happens that it extends to the respiratory organs and produces dyspnœa, anxiety as to the result, palpitation of the heart, and even, in some instances, loss of consciousness.

If an attempt is made to introduce a sound within the œsophagus during the spasm, the instrument will be arrested at the point of stricture, and be more or less firmly grasped by the walls of the œsophagus; but if we rest a moment, the instrument can be usually pushed onwards, without much effort, and suddenly, for the

most part, or with a jerk. Sometimes, in the anxiety of the patient, or in the dislike which he manifests at the catheterization of the œsophagus, the spasm will relax at the very moment that the sound is introduced, so that it can be pushed forward at once, without any hindrance, clear on into the stomach.

The duration of an œsophageal spasm varies very much; it may last a few minutes only, or may continue for several hours. It even happens, in many cases, that the spasm holds on, unbroken, for several days; and may thus, if such paroxysms recur frequently, interfere with the patient's nutrition to a very marked degree.

When the spasm relaxes, it is either simply by permitting the onward passage of the bolus detained in the canal, or by its forcible ejection; followed by the escape of flatus, and the secretion of a peculiar pale, straw-colored urine (urina spastica).

The *diagnosis* depends chiefly on the sudden appearance of the obstruction,—mostly during a meal,—the marked change from a greater or less degree of dysphagia to completely normal deglutition; the presence of other nervous symptoms, and of some disease known to give rise to spasmodic manifestations. Finally, catheterization of the passage gives the most valuable information towards establishing the diagnosis.

It is possible that it may alternate with a commencing stenosis, or with a paralysis of the œsophagus; but the manner of occurrence, the exploratory evidence of the sound, and the further observation of the patient will readily prevent the falling into error.

The *prognosis* will depend upon the cause which has given rise to the spasm.

Treatment during the Spasm.—As the patient cannot swallow during the spasm, medicine must be administered by the rectum, or by the skin. We order enemata of chamomile, valerian, assafœtida, camphor, etc.; sinapisms to the pit of the stomach and the neck; or the inunction of an ointment of cicuta, hyoscyamus, opium, or belladonna, along the spine. Above all, the subcutaneous injection of acetate of morphia or of atropia is to be especially recommended, both on account of its simplicity and feasibility, and on account of its usually prompt success. Besides this, warm tub-baths, eventually in connection with cold sponging, are to be recommended in cases where the cramp has continued for a long time. As a still further and, in many cases, a remarkably successful method of overcoming obstinate spasm of the œsophagus, the proceeding of Mondiére is to be extolled in cases of great sensibility of the œsophageal mucous membrane; this consists in the introduction of a sound smeared with belladonna ointment. If the spasm continues a long time, it will be necessary, in addition to the therapeutic measures, to institute measures for nourishing the patient artificially, by injecting the nutriment through a tube carried down into the stomach.

Treatment during the Interval.—When the spasm has ceased, we resort to the internal administration of zinc, valerian, belladonna, assafœtida, or some of the other so-called nervines. If the paroxysms of spasm are periodic, or if they return with frequency, we resort, in addition, to the influence of the sulphate of quinine.

If there is any special fundamental disease on which the spasm is dependent, it should always receive the fullest recognition in the selection of therapeutic agents.

PARALYSIS OF THE ŒSOPHAGUS.

Outside of traumatic causes, paralysis of the œsophagus is most frequently due to disease of the brain, spinal cord, and par vagum (tumors especially); chronic lead-poisoning, hysteria, diphtheritis, syphilis; or to severe febrile affections, especially typhus. Further, paralysis of the œsophagus is said to follow deglutition of hot drinks; exposure to cold; and fright.

Symptoms.—There are several grades of this affection, varying from a slight paresis to complete paralysis. At the commencement the patient merely remarks that the bolus will not progress properly; repeated acts of deglutition, or the swallowing of water after it, being necessary to force it farther. Large mouthfuls are swallowed better than small ones, and solids better than fluids; and swallowing is performed much better in the erect than in the recumbent posture. Fluids pass down into the stomach with one or more sonorous movements, —a symptom designated as "deglutitio sonora" by the older writers. The difficulty in swallowing gradually increases, and neither the size of the bolus, nor its consistence, nor even the position of the patient, seems to have any influence on the want of facility in swallowing; and finally complete dysphagia exists.

The latter condition is principally observed when, as is not seldom the case, the pharynx is paralyzed as well as the œsophagus. There is no pain during the entire course of œsophageal paralysis, and only occasionally does it happen that regurgitation occurs. If the parts are explored by the sound, no obstruction is perceived at any point, and the instrument can be moved about in all directions.

Paralysis of the œsophagus is not infrequently complicated by paralysis of the pharynx, as already mentioned, but it is also associated, in some instances, with paralysis of the arms, the face, the tongue, the soft palate, the larynx, etc. The combination of paralysis of the œsophagus with paralysis of the tongue and of the larynx places the patient in a very wretched condition, which has been thus strikingly described by Hamburger: "When paralysis of the muscles of the tongue and of the larynx is associated with paralysis of the pharynx, there is always a paralysis of the respiratory muscles, rendering the last days of the patient's life the most torturing that can well be witnessed. At each attempt at deglutition, which must often be made on account of the great thirst or hunger, a portion of the matters pass into the larynx, without the power on the part of the patient to expel them promptly, on account of the great debility of the respiration. What martyrdom, for hours, to free the larynx once more! and hardly is this accomplished when the torture begins again, as every particle of saliva which should have been swallowed passes into the larynx. The last days of the patient present a spectacle of unspeakable distress. Bowed forward, with the saliva flowing unrestrainedly from his mouth, he sits fretted with constant coughing and hawking, debilitated by hunger and thirst, to utter inanition, until, finally, the heart unexpectedly stops of a sudden."

The *auscultatory evidences* of paralysis of the œsophagus are analogous to those of dilatation. It is, therefore, unnecessary to recapitulate them.

The *prognosis* is, in general, unfavorable; especially when the paralysis is not restricted to the œsophagus.

The *treatment* is to be directed against the original cause of the malady. If this treatment is unsuccessful, or if the cause cannot be determined, resort is made to electricity, to blisters or irritating ointments along the spine, to irritation of the œsophagus itself by the frequent introduction of the sound, to cold sponging in combination with frequent douching, and to the internal administration of strychnine, or its hypodermic injection when the former fails.

The nourishment of the patient must be conducted by means of the stomach-tube, if the paralysis is very great. If the patient is still able to swallow, mouthfuls that stick in the œsophagus during meals—as is so often the case—must be pushed down with the œsophageal probang.

PHILADELPHIA

MEDICAL TIMES.

A WEEKLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, MARCH 15, 1873.

EDITORIAL.

"BOGUS" DIPLOMAS.

ACCORDING to the published reports of the Pennsylvania Legislature, on March 4, 1873, in the House of Representatives,

"Mr. Josephs offered the following:

"*Whereas*, A Joint Committee of the Legislature in 1872, in accordance with instructions, made a report upon the sale of bogus diplomas in Arts and Medicine, and, in accordance with said report, the charter of the Philadelphia University of Medicine and Surgery was repealed, with the view of arresting the said sale and traffic in such degrees; and

"*Whereas*, It is believed that the traffic is still carried on, even to a greater extent than before, and that the Eclectic College and American University of Pennsylvania [Philadelphia], whose charters were repealed, are still in operation; and

"*Whereas*, The following advertisement is circulating in Europe:

"'Extracts from the Statutes of the University of Pennsylvania, of Honorary Degrees in Divinity, Law, Arts, and Medicine.

"'First. These may be conferred either at the instance of the Faculty, or in pursuance of a resolution of the Board of Trustees, but no such degree shall be conferred unless the mandamus ordering the same be signed by two-thirds of the whole number of trustees, nor unless the candidate shall have been nominated at the Board three months previous to taking the question on conferring the degree.

"'Second. The question of conferring an honorary degree shall always be decided by ballot, and the candidate must receive an unanimous vote.' And

"*Whereas*, The Mayor of Philadelphia has recently called the attention of the public to the fact that he has received from Europe information that bogus degrees are still a matter of merchandise, emanating from Philadelphia: therefore,

"*Resolved*, That a committee of five members of the House be appointed to investigate the Eclectic Medical College, the Homœopathic Medical College, the Jefferson Medical College, and the Pennsylvania University, together with all other colleges acting under the authority of the State, with power to send for persons, papers, and books, and who shall act without compensation.

"This resolution was urged by Mr. Josephs, who said that City Solicitor Collis had ascertained in Europe that the bogus diplomas were still issued.

"Mr. Mahon opposed the resolution, as being too broad, and as, in a measure, recognizing the existence of colleges whose charters had been repealed.

"The resolution was defeated by 32 yeas to 55 nays.

"Mr. Josephs offered a resolution instructing the Attorney-General to inquire whether the colleges whose charters were repealed in 1872 were still issuing diplomas.

"Mr. Josephs sent to the clerk a number of extracts from newspapers, showing that diplomas were still sold.

"Mr. Elliot (Speaker) held that the Legislature owed it to the people to protect them against quackery, and he could not see why any one should oppose the examination.

"Mr. Hancock said that the Legislature had repealed the charters, and could do no more.

"Mr. Elliot said that the law authorized damages to be found against railroads for killing people at the rate of $5000 per man. How many men would the quacks kill when armed with bogus diplomas?

"Mr. Hancock opposed investigating committees in general, and denounced the law which had limited railroad damages to $5000, as an outrage. He was really in favor. however, of the last resolution, instructing the Attorney-General to inquire into the matter.

"A running debate took place as to the best way of reaching the desired end, viz., the punishment of those who issue bogus diplomas.

"The following was finally passed:

"*Resolved*, That the Attorney-General be instructed to inquire whether any person or persons purporting to be officers of legally authorized medical colleges are issuing diplomas purporting to have the official seal of colleges whose charters have been repealed."

In connection with this subject, the following letters have been placed at our disposal, and we present them in their original language, with a translation, for the information of our readers:

No. 1.

MR. P. F. A. VAN DER VYVER,
DOCTEUR EN DROIT, JERSEY, ANGLETERRE.

24 Nov. 1872.

MONSIEUR,—En réponse à la lettre que vous venez d'écrire, j'ai l'honneur de vous informer que j'ai en mon pouvoir les moyens de vous faciliter l'obtention du diplôme que vous pouvez désirer de l'Université américaine de Philadelphie, dont je vous remets les statuts ci-inclus.

J'entreprends toutes les formalités à mes frais, risques et périls; ainsi vous obtiendrez votre diplôme sans vous déplacer.

La totalité des frais s'élève à six cents francs sans avoir autre déboursé à faire.

Je suis à votre service pour tout ce que pourra vous être utile et agréable, et vous prie d'agréer mes civilités empressées.

P. F. A. VAN DER VYVER,
46 Rue du Roi,
Jersey (Angleterre).

No. 2.

MR. P. F. A. VAN DER VYVER,
DOCTEUR EN DROIT, JERSEY, ANGLETERRE.

29 Nov. 1872.

MONSIEUR,—Je pourrais procurer à votre protégé ce qu'il a besoin et même plus, car je pourrais lui influencer les deux titres de Docteur de Philosophie et Bachelier-en-Lettres sur le même diplôme pour un seul honoraire de six cents francs y compris le certificat d'inscription.

Il y aurait aucun déplacement pour votre protégé à faire; vous auriez seulement à me satisfaire par votre correspondance, que le candidat possède les qualifications, et alors j'enverrai sa promotion au délégué de l'Université américaine à Philadelphie, et il est certain qu'il obtienne son diplôme.

Plusieurs personnes éminentes de Bruxelles et des départements ont déjà obtenu leur diplôme par mon entremise.

Recevez mes civilités empressées.

P. F. A. VAN DER VYVER.

Réponse au plutôt S. V. P. pour que la nomination se fasse vers la fin du mois de Décembre, quand la session actuelle termine et les examens auront lieu.

No. 3.

MR. P. F. A. VAN DER VYVER,
DOCTEUR EN DROIT, JERSEY, ANGLETERRE.

12 Déc. 1872.

MONSIEUR,—Il est surprenant que votre ami vous a tellement renseigné.

Il existe grand nombre de bonnes Universités dans les États-Unis, et notamment à Cambridge, Providence, New Haven, Philadelphie, Columbie, etc.

Il y a à Philadelphie 3 ou 4 bonnes Universités, dont l'Université de Pennsylvanie établie en 1755 occupe le premier rang, et l'Université américaine établie en 1840 occupe le deuxième en [*sic*] rang.

Du reste, vous trouvez dans l'almanach des adresses de Philadelphie, notre Université. Les diplômes, qui sont en latin, porte que l'Université possède le plein pouvoir d'accorder des diplômes.

Du reste, l'Université est établie depuis 40 ans; ainsi votre ami doit peu connaître la ville de Philadelphie pour ne pas se rappeler de cette Université.

Recevez l'assurance de mes bons sentiments.

P. F. A. VAN DER VYVER.

TRANSLATION.

No. 1.

MR. P. F. A. VAN DER VYVER,

Doctor of Laws, Jersey, England.

November 24, 1872.

Sir,—I have the honor to inform you, in answer to your late letter, that it is in my power to assist you in obtaining such diploma as you may desire from the American University of Philadelphia, a copy of whose regulations I enclose.

I will fulfil all the formalities at my own expense and risk, so that you will obtain your diploma without leaving home. The expenses will amount to six hundred francs, including everything.

I offer you my services for whatever may be useful or agreeable to you, and beg you to accept my sincere compliments.

P. F. A. VAN DER VYVER,
46 Rue du Roi,
Jersey (England).

No. 2.

November 29, 1872.

Sir,—I am able to procure for your friend all that he desires, and more besides, for I could obtain for him the two titles of Doctor of Philosophy and Bachelor of Arts upon the same diploma for the single fee of six hundred francs, including the expenses.

Your friend need not leave home; you will only have to assure me by letter that your candidate is properly qualified, and then I will forward his nomination to the agent of the American University of Philadelphia, and it is certain that he will obtain his diploma.

Several eminent persons in Brussels and in the departments have already received diplomas through my intervention.

Accept my sincere respects.

P. F. A. VAN DER VYVER.

Please to reply as soon as possible, so that the nomination may be made before the end of December, when the present session ends and the examinations will take place.

No. 3.

December 12, 1872.

Sir,—It is surprising that your friend should have given you such information.

There is a large number of good Universities in the United States, particularly at Cambridge, Providence, New Haven, Philadelphia, Columbia, etc.

At Philadelphia there are three or four good Universities, among which the University of Pennsylvania, founded in 1755, holds the first place, while the second in rank is the American University, established in 1840.

Moreover, you will find our University in the Philadelphia Directory.

The diplomas, which are in Latin, state that the University has full authority to confer diplomas.

Besides, the University has been established for forty years: so that your friend must have but little knowledge of the city of Philadelphia if he does not remember this University.

Accept the assurance of my friendly feelings.

P. F. A. VAN DER VYVER.

It will be inferred from one of these precious epistles, that of December 12, 1872, that Mr. Van der Vyver's correspondent must, on information received from a friend, have suggested some doubts of the genuineness of the "American University of Philadelphia." The accommodating gentleman thereupon expresses his surprise at such incredulity, and, in order to clinch the proof of his own veracity, transmits a photograph of the "University," and requests the correspondent "to ask his friend if he does not remember Pine Street, and the large building represented in the photograph." This "photograph" turns out to be the photograph not of the college itself, but of a wood-cut bearing the printed title "The American University of Philadelphia, 514 Pine Street, Philadelphia, U.S.A." It represents a double three-storied building with a French attic, with a large door in the centre, and in the second and third stories large triple windows above the door. Surmounting the roof is an ornamental balustrade; and from a lofty flag-staff the American flag waves over all.

Having no recollection of such an edifice in the locality, with which, however, we were pretty familiar, we made a pilgrimage to this Mecca of diploma-desiring aspirants; and, behold! no building even remotely suggesting the print was to be found. Two very old and plain three-storied brick dwelling-houses, each of them about twenty-two feet front, were the only representatives of the "grand bâtiment" of the honorable Mr. Van der Vyver. One of them is occupied by a manufacturer, not of "doctors," but of cabinet furniture; and over the door of the adjoining one, in brazen letters, is the inscription "Eclectic Medical College of Philadelphia;" and all around are tin signs setting forth what diseases are to be cured within. The "grand bâtiment" is simply a myth! —whether devised by the honorable Doctor of Laws of the island of Jersey, or by some of those astute natives who seem to care very little for the law, the legislature, or the attorney-general, is not certain. But it is high time that the power should not only be found, but should also be vigorously used, to crush out this brood of rogues, who seem to laugh at law, while they are dragging in the kennel the names of honest institutions and everything which honest men respect.

AN EXCELLENT MEASURE.

EVERY good citizen of the United States, and in fact every friend of purity and good morals everywhere, will hear with pleasure that a bill "to prevent the mailing of obscene books, papers, articles, and advertisements"—we quote from one of the daily papers—has passed both Houses of Congress and received the President's signature. Faithfully executed, such a law will be an incalculable benefit to the nation.

The nefarious business of scattering obscene publications is, if we are rightly informed, one which can be, or has been, carried on to advantage only through

the mails; since, for obvious reasons, there must be no direct contact between the actual producer and the buyer. We have had brought to our notice, from time to time within the last twenty years, a very large number of advertisements of vile books and pictures, not for sale at any given place, but to be had by sending the price to specified addresses. This practice can be attacked only by the general government, which alone can control the mails. It remains for each State to enact and execute such laws as shall protect its citizens from more direct and open offences against social morality.

It is perhaps hardly necessary to point out the bearing of such legislation, duly enforced, upon the public health. The evil effects of obscene books and papers in fostering the lowest passions, in promoting solitary vice, in debauching the pure, and in rendering the impure worse, can scarcely be over-estimated. By checking the publication of this vile rubbish, one of the great sources of immorality, of the physical and moral ruin of the young, and of venereal disease, insanity, and pauperism, would be cut off.

LEADING ARTICLES.

RECENT IOWA LEGISLATION CONCERNING INSANE HOSPITALS.

II.

IN the last number of the *Medical Times* we adverted to the distrust and suspicion apt to attach, in the public mind, to persons who have occasion to confine insane relatives, to physicians who recommend the step, and especially to all hospitals for the care of this unfortunate class. As one of the latest and most outrageous manifestations of this unjust and bitter spirit, we gave the substance of an act lately passed by the General Assembly of Iowa. We now propose to show the alarming and most mischievous tendency of the act, and to glance at the influences by which legislators were led so singularly to commit themselves.

No one will deny that one proper object of an insane hospital is to exert a certain control and government over persons who have either lost the power of self-control, or have ceased, in consequence of disease, properly to exercise it. In many cases of insanity—even in most—control is imperatively demanded, for the safety of the patient, of his friends, and of his property, and for the peace and order of society. Such restraint, of course, abrogates for the time personal liberty. This is unavoidable; and the only question is, how this coercion can be exercised with the greatest comfort and security to patient, family, and society, and with the best prospect of ending its need by cure. At home, any attempt to govern is fiercely opposed or peevishly complained of. Accusations of ingratitude, loss of natural affection, oppression, or cruelty, are freely made. Reproaches, added to the already distressing grief, sympathy, and agitation of the friends, cause their measures of control to be fitful, injudicious, and irritating. Tears, upbraidings, entreaties, fierce denunciations, and excited appeals, met by equally passionate avowals of sympathy, and by useless reiterations of argumentative attempts to make the insane man feel and think as if he were sane,—these things make the lives of most insane persons at home, if not utterly demented, scenes of perpetual wrangling and contention, leading almost surely to chronic, life-long derangement. The sane relatives are certain to suffer terribly in mind and body from the ever-present sorrow, the strife, and the sleeplessness.

On the other hand, let the same patient be placed, without deception, in a hospital early in the disease. He may resist, use violent and bitter words, and breathe vengeance on all concerned. Still, he is there, and the door is closed. He sees others around him conforming their lives to rule and system. He is treated courteously and kindly by officers and attendants. He perceives that they consider him, not as a prisoner to be punished, but as a sick man to be cured. They have no connection with his home-troubles, and hence provoke no bitter feelings. If at first, or at times, he be violent and abusive, he is met only with a few kind, firm words, or gentle but efficient restraint. He is indulged in no heated discussion. If he write angry letters to his family, he receives no answer; and the fires of his wrath die for want of fuel. If not furiously maniacal, he recognizes the power of his physician as absolute and inevitable. The hospital is a ship, and the superintendent its captain, whose supremacy is unquestioned. The patient thinks it all wrong for him to be there; he is not insane; he would have got along perfectly well at home if they had only let him alone; he was only a little nervous, or harassed by business, or angered by the disobedience or interference of wife or child. Still, in point of fact he is calm and tranquil, as compared to his state at home. The mental splints are upon the broken mind, and the conditions favor cure. Later, he perhaps admits his recent insanity, but claims that he is now well, and that he should be discharged. In vain would be the warning that his brain is still perilously weak and irritable.

But for the power to hold him against his will, he would prematurely plunge into the busy world, with all its excitements, and the additional trying ordeal of meeting friends and acquaintances after so painful and, to him, humiliating a separation. As it is, if spared interference from without, the wise physician detains his patient a few weeks longer. When at last discharged, he is usually grateful, though perhaps deeming the doctor over-cautious.

Let us now observe what havoc this infamous law would make in a case like that just described,—a true picture of many witnessed by the writer. Glancing about the hospital ward, he sees posted the addresses of persons whose business it is to receive complaints. He learns that the superintendent is compelled to forward his letters. He perceives at once, or as soon as his brain begins to clear, that the officers are treated as if known to be dishonorable, corrupt, abusive, and untrustworthy. He knows that any tale of outrage—which the moral obliquity so often characterizing the insane may lead him to invent for mischief or in hope of release—must pass to this committee unseen by the physician. He is visited monthly or oftener by the committee, for the purpose of discovering whether he is abused, or wrongfully committed, or unduly detained. Of course, any man chafing under confinement is likely to find or invent some matter of complaint, when so urgently invited.

This committee, appointed under the influence of such a degree of popular distrust as alone could prompt such legislation, will be certain to represent and share the public prejudice. If one member, only, share this feeling, whatever raw-head-and-bloody-bones stories reach him—and many will—are sure to become public, to the infinite distress of all who have relatives in the hospital. For he is bound under heavy penalties to investigate all matters, and would not desire, even were he able, to preserve secrecy.

Among the results of this act, then, we find the destruction of the patient's confidence and of the physician's good influence and authority. The curative power of the hospital is ended. Even were it not wholly destroyed, the convalescent would be discharged half cured, by, or from fear of, the committee. The superintendent cannot attempt to enforce discipline on sane or insane, lest he be complained of and slandered.

Constant publication of tales of atrocities will lead to the removal of old cases, and prevent the sending of acute cases so long as they can possibly be retained at home. When at last intolerable in the family, they will have become incurable anywhere. The terrible distress of relatives hearing these stories, we have before mentioned.

Good attendants will refuse to remain, in peril of criminal conviction by the inventions or delusions of the insane. A lower class, reckless and unfaithful, with nothing to lose, will succeed them. Discipline, order, and tranquillity will be banished from the wards.

Worthy, efficient, and experienced men will not long consent to act as physicians in State hospitals where this law shall be placed and retained on the statute-book. Unprincipled adventurers, or at best men wholly ignorant of their duties, will succeed the educated and honorable superintendents.

In short, total demoralization must ensue in all departments of a hospital long managed under this law.

Testimony from the superintendent of the Iowa hospital, only a month after the passage of the act, shows evil effect on patients, resignation of "eight of my most experienced and valuable attendants," premature removal of four curable patients, due to deceptive letters sent out, as the first fruits of this "tree of bitterness."

To one acquainted with the history of the Iowa State hospital, the passage, in that State, of such an act seemed almost incredible. Dr. Ranney has been at the head of the hospital some seven years. He has enjoyed, to a degree unusual in State hospitals, the confidence of trustees and the legislature. His remarkable success, both as a medical and an administrative officer, including the planning and executing of important improvements, caused his representations to be treated with much respect. His friends were proud of the consideration with which his views were listened to, and the liberality with which appropriations were granted by the legislature. It is not alleged that he has done anything to forfeit this respect and confidence. Yet the General Assembly passed this act with only two or three dissenting voices,—all in the upper house! The lever exerting such energy was systematic, industrious misrepresentation; the fulcrum, popular credulity; and the power, a woman's tongue!

This woman was insane a number of years ago, and was for several months a patient in a New England hospital before her marriage. She was discharged as recovered. Twenty years later she was an inmate of the Illinois State hospital, for, we believe, two or three years. She was discharged against her will, and removed by force, as incurable, to make room for more hopeful cases, some nine years ago. She professed to suffer and to witness great abuses in the hospital, and succeeded in bring-

ing about a legislative investigation. This occupied a long time, received the testimony of many witnesses, sane and insane, did great injury to the usefulness of the hospital, and led to the resignation of its superintendent. For some reason the lady retained a bitter spite against insane hospitals, and has begun a crusade against the entire class. She is very shrewd and plausible, gaining full belief not only from those whose faith covets the impossible for its exercise, but also, in many instances, from persons of culture and intelligence. In regard to this Iowa law, we learn that she devoted herself to the task of interviewing every member of the legislature, assuring them of the existence of abuses in their own hospital, and urging the passage of this bill, which is said to be of her own concoction. Her marvellous success is shown by the unanimity with which the monstrosity was passed. Surely woman needs not the ballot, when without it she can wield, for evil the power of this lady, and for good, that of Miss D. L. Dix.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, JANUARY 23, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. CHARLES H. THOMAS presented the following specimens:

1. *Ulceration of the colon, with a much enlarged fatty liver*, removed from a man aged 40, apparently previously healthy, who sent for him November 10, 1872, suffering from what he described as a troublesome "diarrhœa." There was no fever, and little or no abdominal pain, but some tenesmus, for which an opium suppository was ordered. Two days later, though no worse in respect to the discharges, which were now slightly bloody and mucous, he became much depressed in spirits, complaining of nausea and a distressing thirst. He had a weak, compressible pulse. From this time to his death, which occurred on the ninth day after the attack, he gradually failed in strength, seeming to die of inanition rather than of active disease.

Post-mortem examination, aided by a student, Mr. Theron Wales, revealed but a slight amount of the inflammation characteristic of dysentery in the rectum, colon, and lower portion of the ileum, as the specimens show. But nothing in the condition of the intestinal tract indicated sufficient disease to cause death. The liver, however, was enlarged to twice its normal size, much softened, and in an advanced stage of fatty degeneration. The case appeared to Dr. Thomas clearly one of mild *dysentery*, superposed upon the grave liver-affection, to which—though previously unsuspected—the fatal termination was chiefly due. The doctor afterwards learned that the patient had for years thought his liver diseased, and that morning-nausea of the most distressing character had long disturbed him. His attendance and observation of the case were seriously embarrassed by a lapse of three days after the fifth day,—during which time a "homœopath" made ineffectual trial of his potencies. When called upon to resume charge, the patient was already moribund.

2. *Encephaloid tumors of leg and liver*, removed from Mrs. ——, æt. 45, who attended as an out-door patient at the surgical clinic of the Woman's Hospital during his service there, in August, 1872, to seek relief from a bleeding encephaloid tumor, about two inches in diameter at its base, situated upon the calf of the left leg, and of six months' standing. Under applications of chromic acid, in substance, to the morbid mass, it sloughed off in about three weeks. The succeeding ulcer refused to heal completely.

Early in November the patient again consulted him in regard to a small growth at the site of the ulcer, like the one removed, which gave her some uneasiness of mind; and, further, to obtain ease from "a terrible pain at the pit of the stomach," and, to his surprise, —considering her age and her very decrepit and cachectic appearance,—to engage attendance in her approaching confinement, which was to take place three months later. This was her *seventeenth* pregnancy,—nine of her children being now alive.

By palpation, a large mass was felt in the right hypochondrium, which was exquisitely tender upon pressure. The area of percussion-dulness also was enlarged. The pain in the part had been severe and almost constant for *two years*. Nausea, which nothing allayed, except for a short time, was a source of much annoyance and consequent exhaustion. A combination of morph. sulph. and potass. bromid. in full doses gave her considerable relief from pain.

At this time cancer—of the liver primarily, of the leg secondarily—was diagnosticated. After a month she became decidedly worse, with augmented epigastric pain and irritability of the stomach, accompanied with much emaciation and almost total sleeplessness. Early on the morning of December 24, the doctor was called to her bedside, and was informed that during the night her right foot "had mortified, and that she was in agony from it." On inspection, this proved true; the sphacelation extending, within the succeeding four hours, as high as the knee. At this time her mental faculties were unimpaired, while her complaints of the pain in the foot and region of the liver were pitiful to hear. No signs of the beginning of labor were to be seen,—the pain being singularly unremitting, and always distinctly localized as above stated. But, as she was now evidently sinking rapidly, the probable near approach of death was announced to her friends, when he was told by an attendant that "something was passing from her." It was then discovered that a dead and decomposing fœtus, of the eighth month, was partially extruded from the vagina. This was removed, and an examination made, which showed that, with the placenta still within the uterus, and the latter contracted with moderate firmness, no hemorrhage was occurring; and, as she was undoubtedly *in articulo mortis*, she was not further disturbed. At this juncture Dr. Lewis D. Harlow saw her; no further action was considered advisable, and the patient died in about two hours afterwards.

Autopsy, Mr. Theron Wales assisting.—1. The accompanying growth was removed from the leg. 2. The abdominal viscera were found free from disease, excepting the liver, which weighed about ten pounds, and was studded with a profusion of encephaloid nodules like the specimen presented, and partially disorganized. 3. The uterus was found completely contracted; the placenta lying loose in the vagina; the walls of the uterus being nearly two inches in thickness, anteroposteriorly.

The specimen was referred to the Committee on Morbid Growths, who reported that the *primary* growth exhibited by Dr. C. H. Thomas was a *medullary carci-*

noma with well-marked alveolar arrangement of epithelial-like cells. The secondary growths were not examined, on account of their defective preservation.

Dr. THOMAS also called attention to what he deemed a most convenient means of transporting specimens from the place of post-mortem examination or under any circumstances where it was desirable to avoid attracting attention. This article was the simple *toilet sponge-bag* for travellers, sold by most apothecaries. This is impervious to liquids and odors; and by means of it he was able to bring specimens this evening which he could not otherwise have obtained.

Syphilitic Panaris in an Infant.—Dr. JOHN ASHHURST, Jr., mentioned that among the out-patients attending at the Children's Hospital was a child, only twenty months of age, which presented a marked example of the affection known as syphilitic panaris, or, as it is now called, dactylitis syphilitica. The patient was unquestionably a victim of hereditary syphilis, and the lesion of the finger had begun to manifest itself five months before the child was brought to the hospital,—at the early age, therefore, of fifteen months. While Dr. Ashhurst thought that syphilitic panaris was hardly so rare a lesion as it has been considered by Dr. Taylor, of New York, he looked upon its occurrence at the age of the patient whose case he was describing as somewhat exceptional.

REVIEWS AND BOOK NOTICES.

DISEASES OF THE OVARIES: THEIR DIAGNOSIS AND TREATMENT. By T. SPENCER WELLS. Pp. 478. New York, D. Appleton & Co., 1873.

Like the fire of the prytaneum, the lamp of knowledge never goes out; some hierophant stands ever ready to feed the sacred flame. Within a few short weeks, twice has this been done in a single department of science, and that by our own countrymen. This time it is by a citizen of no mean city, himself the *pontifex maximus*.

Above its fellows will the book before us be welcomed, not only by specialists, but by all those members of the profession who strive to keep abreast of the times. An author who has had an experience in ovariotomy larger than any other that ever has been or ever will be,—an experience of five hundred completed operations, twenty-eight uncompleted ones, and twenty-four cases of exploratory incisions; an experience whose record alone needs the respectable library of over thirty portly blank-books,—such an author is entitled to take rank over all others in his chosen branch of the profession. Yet the most renowned operator is not always the best teacher, and this book has somewhat disappointed us. Narrowed down to the record of one man's work, it has the "backbone of individuality," but not the scope of a complete treatise. In that sense it cannot for a moment compare with the peerless monument of industry that Dr. Peaslee has given us.

The first 116 pages describe the histology and regional anatomy of the female reproductive organs, together with the pathology of the ovaries. The diagnosis of ovarian tumors takes up the next 141 pages. The remainder of the book discusses their treatment. An intimate acquaintance with foreign literature,—so rare in an Englishman,—a sure-footed and far-sighted judgment, a conscientious industry, and the unrivalled affluence of his experience, render this treatise a noble store-house of knowledge. Yet it is not wholly invulnerable: it was the heel of the great Achilles that missed the baptism of the Styx; it is mainly the manner, and not the matter, that challenges our criticism.

To the microscopic characteristics of the ovarian fluid the author attaches but little importance. For all practical purposes, indeed, his "conclusions from micro-chemical examinations" are very impotent conclusions. Despite the alleged discovery by Waldeyer of a special epithelial tunic, he gives the ovary the usual peritoneal investment. This he contends is, after the age of thirty, the normal anatomy of that organ. In the very young, something like a germinal epithelium may be seen; but confirmatory investigations by other histologists must be made before views can be accepted which "would materially affect some physiological doctrines." He maintains that "from the sixth to the ninth month, most clearly about the eighth, the fœtus may be made to ballot upon the finger in the vagina." Now, apart from our very decided objection to the introduction of the "ballot" into obstetrics, we take exception to this teaching. The best writers upon obstetrics make the range of ballottement lie, as a rule, between the end of the third and the beginning of the seventh month; and this our own experience confirms. Were this not so, there would be no trustworthy method of diagnosticating the condition of pregnancy earlier than that by auscultation.

In the matter of anæsthetics, Mr. Wells uses the bichloride of methyl, because it contains one equivalent less of chlorine than chloroform, and is not so liable to be followed by vomiting. He gives it in the form of a spray.

Through a strange oversight, he makes no mention of Dr. Miner's treatment of the pedicle by enucleation. Of the extra-peritoneal method, however, there exists no warmer partisan. Of course the thorny question of *post aut propter hoc* at once comes up; but, after so rare a success with the clamp as a mortality of only 25.4 per cent., he could not speak otherwise. In advocating its use he offers the following excellent reasons. Owing to the very uniform presence of the Fallopian tube in the stump, in one-third of those cases in which the pedicle is treated outside of the body, the wound, for some time after the operation, reopens at every month to permit the escape of menstrual fluid. Such being the case, it stands to reason that the same phenomenon must as well take place in a stump returned into the cavity of the abdomen, exposing the woman, therefore, to all the dangers arising from hæmatocele. Then, again, whenever the pedicle is treated by the intra-peritoneal method, the raw surface of the stump becomes sealed by contracting adhesions with the intestines. A fatal occlusion of the bowel is thus liable to happen, or a collection of pus, becoming circumscribed, has ultimately to find an outlet by a long sinus.

The etiology of diseases depends almost exclusively upon statistical inquiries; but, very unfortunately, the author's have not been handled with that care which the importance of the subject demands. His facts have not been teased apart. His tables seem to have been constructed solely with a view to discover the elements of success and to authenticate his cases. Much more than this should have been aimed at. For instance, "the conjugal condition" of his five hundred patients is lamely exhibited by the bare statement that two hundred and seventy-nine were married, and two hundred and twenty-one unmarried. We are not told whether the unmarried were so *de jure* or *de facto;* what proportion of the married were widows; whether his married patients were, before the operation, sterile, fruitful, or fecund; and, in so many words, what was the average age of his patients. On these questions hinges much of importance in the elucidation of vital statistics. Verjuice and virginity, crabbedness and celibacy, are popularly deemed inseparables. Fibroid tumors, polypi and cancers, and a host of other uterine disorders, have hitherto been loosely attributed to a life of single bless-

edness. Very recently this has been made the subject of scientific inquiry. From a careful examination of the Registrar's tables, Bergeron has lately shown that marriage prolongs life in both sexes, by giving a comparative immunity from sexual diseases. This statement Mr. Wells's statistics will be found to confirm, provided the reader takes the trouble to do what the author should have done. By carefully going over these tables, we have counted up nineteen widows. Now, by deducting this number from that of the married, and by adding it to the sum of the unmarried, we obtain the enormous ratio of two hundred and forty women without husbands to two hundred and sixty with husbands. The significance of these figures can hardly be over-estimated; for it goes to show that unless the cycle of reproduction is completed in woman, she is plainly violating some great law of her being. With a population fully equal to that of the British Isles, we have in our own country certainly fewer cases of ovarian disease. May not this comparative immunity be owing to the fact that the disproportion of the sexes is less in the United States than in the mother-country?

It is gratifying to learn that the removal of one ovary does not unsex a woman. Of thirty-five of Mr. Wells's patients who got married after the operation, fourteen have since had one or more children; two have had twins. Of two hundred and fifty-nine women who were married at the time of the operation, and who have since kept him supplied with annual slips from their family Bibles, twenty-three have had one or more children. Even as regards the twenty-five women from whom both ovaries were removed, the author "has not been able to trace any peculiarity in their subsequent condition . . . as compared with those from whom only one ovary was removed, except that in only one case has there been anything like menstruation after recovery." In a professional point of view, however, a music-teacher was much the gainer by the double operation. "My voice is stronger," she writes: "I can sing the upper notes with greater facility than formerly. I can sing from A up to C natural." To those *prime donne* who wish to warble nimbly in the upper register, we gratuitously throw out this hint. The time may yet be when the capricious Opera shall impose upon its priestesses that sacrifice which a cruel dilettanteism exacted from pontifical sopranists; when, by the aid of the minor incision and the clamp, the madrigals of Pergolesi and the canzonets of the old composers shall be sung in their original key.

In order to establish the claim "that ovariotomy originated with British surgery, on British ground," much is made of a certain Dr. Robert Houstoun, who, in 1701, opened a woman's belly to the extent of two inches with "an imposthume lancet," and, with a "strong fir-splinter" wrapped with "some loose lint about the end of it," drew out some hydatids, and "about two yards in length of a substance thicker than any jelly." On another page, it is true, the author very grudgingly admits that "no one can dispute the validity of the direct claims of McDowell as designedly the first rational ovariotomist." But the edge of this compliment is blunted by a most unhappy-looking portrait of the "first rational ovariotomist," and by the saving clause that, "at the same time, it must be maintained that the still greater merit of pointing out the absence of any physiological reasons against the operation, the possibility of its safe performance in the human female, and the class of cases in which it ought to be admissible, is due to a series of eminent British surgeons."

One grave fault lowers the standard of this book; and that is an offensive egotism. The hilarity of success is too boisterous. The author's pats and others' slaps upon his shoulder are too audible and too frequent to be in good taste. His reviewers would cheerfully have done this for him, but he has been beforehand with them there; he has done it himself. Perhaps this, however, is the last British fashion; for we are told by the London *Times* that, with reference to his last novel, the late Lord Lytton "had himself expressed the very highest opinion of its merits."

By the lack of an index the usefulness of this book is much hampered; and this is not the only mark of haste. The style is by no means elegant, and not always grammatical. It is, further, too often dashed with trite scraps of Latin, and too often marred by mawkish attempts at humor and at fine writing. Skylarking with one's mother-tongue is permissible in a boarding-school girl; unpardonable in one of the princes of science. Not in motley, but in robes of purple should royalty be clad. Out of many examples of these failings we select the following: "British experience is echoed from the Continent. Neither climatic influences nor constitutional peculiarities seem to assist the physician in his efforts at cure. One might expect something different from the impetuous science of the South, acting upon the warm-blooded victims of ovarian disease, in a climate whose morbific and curative alternations are almost phantasmagoric, or from the persistent therapeutical batteries and sieges of the North, opposed to the passive resistance of phlegmatic habits. . . . The fact that vascular excitement and congestion aggravate every symptom naturally enforces in a question of matrimony the Polichinellian advice, 'Don't.'" Chapters sixth and eighth contain many choice specimens of a style which has hitherto been consecrated to the literature of table-turning and joint-cracking circles.

As a good illustration of the author's mannerism, and of the shifts that national vanity will resort to, we should like to transcribe in full a very curious argument, showing how McDowell snatched the laurel of priority from the British Lion; but, as it extends somewhat over a page, we shall merely give the thread of it. "In this country, such is the sacredness of human life, even when threatened by fatal disease, . . . that men even of the stamp of the Hunters and the Bells naturally shrank from the responsibility . . . of adopting and inaugurating it [ovariotomy] as a part of legitimate surgery; and elected rather, in the modesty of their greatness,—'*stare decisis et non quietâ movere*,'—to content themselves by tending with careful pains the last flickerings of life in their confiding patients, and soothing as best they might their prolonged sufferings, than, as it would seem to them, proceed to the choice and immolation of the sacrificial victims demanded as the inevitable price of the safety of future generations, or the aggrandizement of their own fame. And it must be remembered that . . . they [the patients] were not buoyed up, as modern women are, by the histories and promises of painless extirpations under chloroform or methylene; and that, without anything like mawkish sentimentalism, surgeons themselves had to encounter the '*peine forte et dure*' of their suppressed sympathy, and nerve themselves up to the infliction of the most deliberate and tedious eviscerative vivisection. The disease was looked upon as a mystery, and its ending in death as a matter of course; and, instead of being accompanied, as we now see it, by fretful resistance and chafings to escape, it only led—'*Deo duce, medico comitante*'—to stolid endurance or religious submission; and, on the part of the profession, to an '*ad normam*' attendance, rather ceremonial than remedial. But McDowell *was* a free man in a new country, clear from the conventional trammels of Old-World practice, *found* his patients in the most favorable conditions of animal life, *seems* to have had one of those incomprehensible runs of luck upon which a man's fate and reputation so often turn———and was happy . . . in finding suitable time, place, persons, and opportunity for testing the exercise of his Young-American

'*felix temeritas*,' based upon and guided by the Scotch '*perfervidum ingenium*' of his tutor, Bell."

Five quotations from the Latin and one from the French within the compass of a page, and the rest English on stilts! After reading this and much like it, we feel constrained to cap the above quotations by ejaculating, in a literary sense, the petition from the litany of our Anglo-Saxon forefathers,—"A furore Normanorum libera nos, Domine."

BOOKS AND PAMPHLETS RECEIVED.

Criminal Responsibility of Epileptics. By M. G. Echeverria, M.D. (Reprint from the *American Journal of Insanity*, January, 1873.) 8vo, pp. 85.

Report of the Pennsylvania Hospital for the Insane, for the Year 1872. By Thomas S. Kirkbride, M.D., Physician-in-Chief and Superintendent. 8vo, pp. 70. Philadelphia, 1873.

First Annual Report of the State Board of Health of Minnesota. January, 1873. 8vo, pp. 102.

Fifth Annual Report of the Board of Managers of the Philadelphia Orthopædic Hospital for Treatment of Bodily Deformities and Diseases of the Nervous System. Small 8vo, pp. 23. Philadelphia, 1873.

Fifth Annual Report of the Pennsylvania Society for the Prevention of Cruelty to Animals. 8vo, pp. 32. Philadelphia, 1873.

What Women Should Know. A Woman's Book about Women, containing Practical Information for Wives and Mothers. By Mrs. E. B. Duffey. Small 8vo, pp. 320. Philadelphia, J. M. Stoddart & Co., 1873.

GLEANINGS FROM OUR EXCHANGES.

Interrupted Micturition in Children (Englisch: Aertzl. Verein in Wien; from *Wiener Med. Presse*, December 1, 1872).—Excluding those cases where no urine is secreted, Dr. Englisch first spoke of cases in which the pathologico-anatomical changes interfere with the voiding of urine already secreted. This may occur from closure of the prepuce, and of the dermoid opening of the urethra,—the most usual cause,—or by a closure of the vesical opening of the urethra, of the opening of the ureter into the bladder, or the stoppage of the ureter,—a rare occurrence,—as, for example, by a foreign body.

If the urethra is closed, it is closed through a considerable portion of its length. There are frequently valves in the urethra, generally in the upper part, and there may also be valves in the neck of the bladder, and even in the ureters. They interfere with the passage of the urine only when they are broad, and present their free edge towards the bladder. The stoppage of urine by valves alters the shape of the bladder so that it may be easily detected in the cadaver. The organ becomes egg-shaped, its walls are thickened, the mucous membrane is thrown into numerous folds, and the ureters and pelvis of the kidney are widened, and nephritis and atrophy of the kidneys are present.

The voidance of the urine is rarely entirely suspended; it is generally only impeded, especially when the openings and calibre of the urinary passages are only narrowed, or when tumors are situated in them.

The narrowing may also be caused by inflammatory processes in the urethra.

Congenital phymosis may render micturition difficult, especially in those children where the foreskin has united with the glans penis, in such a way that the opening is covered by the prepuce.

In hypospadias a narrowing of the external urethral opening is generally present. If tumors are present, we shall find that the cystic and polypous forms give the most trouble; the former, though smaller, provoke the most irritation. They may be entirely new growths, or they may be the results of retention of secretions, as, for example, the dilatation of the glands of Littré in the female urethra, and the distention of the sinus pocularis in the male. Such "retention-cysts" the author found always in the median line, on the inferior wall of the urethra, at the point of junction between the pendulous portion and the bulbous, whereas in adults the lacunæ Morgagni were dilated by the retention.

Hyperplasia of the prostate gland is also a frequent cause of difficult micturition, and the author believes that a congenital hypertrophy of this gland often exists. Among pathological causes, external to the urethra, may be mentioned peri-urethritis caused by the irritative effects of coxitis upon the cellular tissue.

If concrements are in the bladder, the effects of the previously described obstructions are increased. The chief symptom is the dilatation of that part which lies behind the obstruction. If the obstruction is anterior to the fascia perinæi propria, swelling and erection accompany the voidance of the urine, and continue a little while after it is accomplished.

If the obstruction lies deeper, the fulness of the bladder becomes the cause of pain. The little sufferers cry aloud at each endeavor to pass the urine, draw up their lower extremities, and move their pelvis about restlessly. By a continued distention of the bladder, nephritis is at last produced,—the real cause of which is often overlooked in these cases by the post-mortem examiner. Catheterization should be performed with an elastic catheter. These obstructions occur less frequently in the later years of life; they usually occur immediately after birth. The bladder in children shows a marked tendency to hypertrophy.

Progressive Muscular Atrophy.—M. Hanot has recently had under observation, in the Hôpital Salpétrière, two cases of progressive muscular atrophy occurring in women affected with general palsy. One of the patients died, and M. Hanot found that the cells of the anterior columns of the cord, particularly in the cervical region, had undergone disintegration. To this well-marked and distinctly limited lesion there was conjoined diffused sclerosis of the posterior columns, which, however, was less distinctly marked, and somewhat doubtful. Hence, in addition to diffused sclerosis, described by Magnan and Westphal, there existed, in the present cases, progressive muscular atrophy, with changes in the motor elements of the spinal cord.

M. Charcot, apropos of what was said by M. Hanot, revives the question of nutritional disturbances, and the physiological interpretation that may be bestowed upon them. Samuel originated the idea of the existence of trophic nerves and endowed them with special functions, but anatomy and physiology have dealt justly with the invention, and we have now gotten rid of this new kind of nerves. What can be substituted in their place? Clinical facts are crowding together, and demand explanation. M. Charcot has taken upon himself the risk of proposing one, by throwing out a hypothesis which accords with what we know of the physiology of nerves. It is known that M. Vulpian, by joining the lingual and hypoglossal together, has proved that the motor and sensory fibres possess but one and the same function,—viz., that of transmitting the nervous current. The distinguishing point between them

is their different mode of termination in the centres and at the periphery. If, then, the nerve-fibres are capable of transmitting centripetal and centrifugal waves, it is not improbable that an excitation of the sensory fibres, propagated to the periphery, may irritate the terminal filaments with their delicate organization, described by Pacini, Meissner, Langerhans, and Biésiadecki, and cause various changes, such as zona, ulcerations, etc.

Double Luxation of the Clavicle (by Dr. Col).—The *Mouvement Médical* of November 9, 1872, contains the following report of a curious case of double luxation of the clavicle, taken from the *Gazette des Hôpitaux*. On the 29th of May, a girl seventeen years of age, while unloading a heavy dray, was jammed, by a sudden movement of the horses, between the shaft and a wall. By violent pressure on both shoulders the chest was compressed, and was at the same time rotated by the gliding of the shaft on the left shoulder, while the right was fixed against the wall.

M. Col, who saw the girl ten minutes after the occurrence of the accident, found that the left clavicle was dislocated at both of its extremities, producing a marked prominence at the acromion and at the sternum. The entire bone had been driven forwards, as it happens to the stone when a cherry is squeezed between the thumb and the index-finger.

The apparatus employed to keep the shoulder back and the ends of the bone in place consisted of a towel binding the elbow to the trunk, and three pads,—one of good size for the axilla, and two smaller ones for the extremities of the clavicle. On the 3d of July the dressing was entirely removed; the patient had some difficulty in moving her left arm, but on the 20th the movements were perfectly free, and the girl was again able to assist her father in the arduous duties of drayman.

MISCELLANY.

American Medical Association.—The twenty-fourth annual session of this body will be held in St. Louis, Mo., on May 6, 1873. Dr. T. M. Logan, of Sacramento, Cal., is the President-elect.

Physicians desiring to present papers before the Association should observe the following rule:

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of his Section, to determine the time and order of their presentation, and give due notice of the same. . . . ."

The following is a list of the Secretaries of Sections:

Chemistry and Materia Medica,—Ephraim Cutter, Boston, Mass.

Practice of Medicine and Obstetrics,—Benjamin F. Dawson, New York, N.Y.

Surgery and Anatomy,—W. F. Peck, Davenport, Iowa.

Meteorology and Epidemics,—Elisha Harris, New York, N.Y.

Medical Jurisprudence, Hygiene, and Physiology,—A. B. Arnold, Baltimore, Md.

Psychology,—John Curwen, Harrisburg, Pa.

It is proposed so to amend the By-laws that, instead of a report on Medical Education, on Medical Literature, and on Climatology and Epidemic Diseases, there shall be annually delivered before the Association, at its general meetings, an address in Medicine, an address in Surgery, and an address in Midwifery, or the Diseases of Children, the lecturers to be appointed this year by the President, afterwards by the Committee on Nominations.

Secretaries of all medical organizations are requested to forward lists of their delegates, as soon as elected, to the Permanent Secretary, W. B. Atkinson, 1400 Pine Street, Philadelphia.

Still Chartered.—*The Evening Telegraph* of March 10 contained the following item:

"Recently Judge Agnew, in the Supreme Court, gave the following decision in a case brought against the Eclectic College:

"The charter of the Eclectic Medical College of Pennsylvania was granted by act of Assembly in 1850, before the amendment of the Constitution in 1857. It contains no power of repeal. That such a charter is a contract between the State and the corporators, as to the franchises granted, is well settled: Iron City Bank *vs.* City of Pittsburg, 1 Wright, 340. Without a judicial proceeding to declare a forfeiture of the charter upon cause shown, there is no power to repeal it summarily: Erie and North East Railroad Company *vs.* Casey, 2 Casey, 301; same *vs.* same, 1 Grant, 271; Com. *vs.* Pittsburg and Connellsville Railroad Company, 8 P. F. Smith, 46–7. The act of 22d March, 1872, is the act of but one party to the contract, without a power reserved in the contract to authorize the State to do the act, and, being without the consent of the other party (the corporators), is nugatory, because of the Constitution of the United States, article 1, section 10, and the Constitution of the State, article 9, section 10, forbidding the passage of laws impairing the obligation of contracts. The recital in the preamble of the act of 1872, that it had been ascertained, by evidence produced before a committee of the Senate, that the Eclectic Medical College had been guilty of unlawful, discreditable, and dangerous acts, on which the repeal was thereupon declared, does not help the case. The committee had no judicial power, and could not turn itself into a court of justice to take jurisdiction, summons and try the corporation for its alleged offences. It was but a portion of the legislative body itself, charged with a function merely auxiliary to legislation. Its judgment was no more than the judgment of the body conferring upon it the power of inquiry. The act of 1872, repealing the charter, was therefore without legislative force, and void. The corporation is entitled to a trial in due course of law, to ascertain its breach of duty, before its charter can be taken away. A franchise is a valuable privilege, and is property in the contemplation of law; and the body possessing it is as much entitled to a judicial determi-

nation of its right, or want of right, to hold it, as a natural person is of his right to his lands or his goods. The defendant is therefore entitled to judgment upon his demurrer.

"Demurrer sustained, and judgment thereupon for the defendant, that he go without day, and be paid his costs."

THE lectures in the schools of medicine and pharmacy at Montpellier, in France, suspended recently by government on account of certain irregularities on the part of some of the students, were resumed on the 14th of February; only those pupils being admitted, however, who were provided with tickets by the authorities. No clear statement of the exact cause of the trouble has as yet been made public.

SUICIDE.—On the morning of March 5, Dr. Alfred E. Walker, a promising young physician of New Haven, Connecticut, shot himself dead in his room at the New Haven Hotel. The act resulted from chronic melancholy, almost amounting to insanity, under which he had for some time been suffering.

CORRECTION.—Our recent announcement of a new edition of the "United States Dispensatory" was premature, as the work of revision is one of great labor, requiring much time for its performance. We should have stated that the material for the revised edition was being collected.

ACCORDING to the "Philadelphia Medical Register," lately issued, there are six hundred and ninety-nine regular physicians in the city. About fifty of these have retired from active practice.

APPOINTMENT.—Dr. A. W. Mathews, of Media, has been appointed by Governor Hartranft quarantine physician to the port of Philadelphia, to succeed Dr. John L. Gihon, removed.

DR. SOCRATES N. SHERMAN, a leading physician and public man of Ogdensburg, New York, died early in February, at the age of 71.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending March 8, 1873, were 332; 169 adults, and 163 minors. 7 were of bodies brought from the country; making the mortality of the city 325. Among the assigned causes of death were:

Consumption of the Lungs	43
Other Diseases of the Respiratory Organs	46
Diseases of the Circulatory Apparatus	12
Diseases of the Brain and Nervous System	54
Diseases of the Digestive Apparatus	23
Zymotic Diseases (12 from Scarlet Fever, 1 from Small-pox)	36
Typhoid Fever	5
Casualties	6
Cancer	5
Diseases of the Urinary Organs	7
Pyæmia	2
Rheumatism	2
Tumors	2
Debility (including "Inanition" and "Marasmus")	37
Still-born	20
Old Age	15

(The interments reported for the week ending March 9, 1872, were 443.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

		THERMOMETER.		BAROMETER.
		Max.	Min.	(2 P.M.)
Mar.	2	42.0°	27.5°	30.17 in. (Snow.)
"	3	37.0	17.0	29.83 in. (Snow.)
"	4	24.0	8.0	30.33 in.
"	5	25.0	10.0	30.70 in.
"	6	33.0	15.0	30.77 in.
"	7	44.0	23.5	30.51 in.
"	8	47.0	32.5	29.99 in.

The mean temperature of the month of February was 30.57°.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM FEBRUARY 25, 1873, TO MARCH 10, 1873, INCLUSIVE.

VOLLUM, E. P., ASSISTANT-SURGEON.—The leave of absence granted by S. O. 25, Department of the Platte, February 15, 1873, extended thirty days. S. O. 22, Military Division of the Missouri, February 24, 1873.

POPE, B. F., ASSISTANT-SURGEON.—To accompany 7th Regiment of Cavalry to Fort Randall, Dakota Territory, and, after completion of this duty, return to Louisville, Kentucky, reporting to Medical Director, Department of the South. S. O. 40, Department of the South, February 26, 1873.

CAMPBELL, JOHN, SURGEON.—Granted leave of absence for thirty days. S. O. 41, Department of the East, March 3, 1873.

MACKIN, CHARLES, ASSISTANT-SURGEON.—Assigned to duty at Yorkville, South Carolina. S. O. 45, Department of the South, March 4, 1873.

NAVY NEWS.

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY, FROM FEBRUARY 1, 1873.

Medical Director W. S. W. RUSCHENBERGER,—Waiting orders.

Medical Director J. M. FOLTZ,—To Naval Hospital, Philadelphia.

Medical Director WILLIAM MAXWELL WOOD,—As Inspector-General of Hospitals and Fleets.

Surgeon HENRY C. NELSON,—As Recorder of Naval Medical Board.

Medical Inspector SAMUEL F. COWES,—To Navy Yard, Portsmouth, New Hampshire.

Medical Inspector ALBERT L. GIHON,—To special duty, Bureau of Medicine and Surgery.

Medical Inspector EDWARD SHIPPEN,—Waiting orders.

P. A. Surgeon HENRY STEWART,—Naval Station, New Orleans.

Surgeon F. E. POTTER,—Receiving Ship, Portsmouth, New Hampshire.

Surgeon SOMERSET ROBINSON,—League Island Navy Yard.

P. A. Surgeon H. M. RUNDLETT,—To Iron-clad "Terror."

Surgeon J. H. CLARK,—Waiting orders.

Assistant-Surgeon S. W. LATTA,—Waiting orders.

Surgeon A. A. HOEHLING,—Sick leave.

Surgeon THOMAS C. WALTON,—To U.S.S. "Juniata."

Assistant-Surgeon H. C. ECKSTEIN,—Ordered home.

Assistant-Surgeon EDWARD EVERS,—To U.S.S. "Narragansett."

Surgeon B. F. GIBBS,—To U.S.S. "Richmond."

Assistant-Surgeon E. C. THATCHER,—Resigned.

Medical Inspector ALBERT L. GIHON,—To European Station, as Surgeon of the Fleet, on June 1.

SATURDAY, MARCH 22, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 371.)

LECTURE V.

CHRONIC LARYNGITIS.

CHRONIC inflammation of the larynx is a frequent attendant upon chronic pulmonary phthisis; is one of the later manifestations of syphilis; is an accompaniment of carcinomatous disease; and is often a sequel to acute laryngitis. The inhalation of minute particles of foreign bodies suspended in the air is a very frequent cause of chronic laryngitis.

In most cases, the trachea participates more or less extensively in the inflammation; and in some there is at the same time an inflammatory condition of the naso-pharyngeal mucous membranes, which is sometimes antecedent to the laryngeal affection, and sometimes subsequent to it.

Chronic laryngitis is very apt to terminate in ulceration of the mucous membrane, giving rise to the condition designated as ulcerative chronic laryngitis.

Upon laryngoscopic inspection the mucous coverings of the parts involved will always be found more or less congested, their color varying from a mere deepening of the normal pink or red, to a deep-red or even purplish-red. Enlarged veins are often seen coursing beneath the surface of the epiglottis and the ary-epiglottic folds, and occasionally on the vocal cords. The mucous membrane is generally thickened and indurated, and frequently has a velvety appearance. The vocal cords do not always participate in the general condition, their color often seeming whiter than natural by contrast; but they are very apt to be thickened at their edges, even when not much changed in color. They are usually involved, however, and then they have a red or yellowish color, and their surface is rough and uneven. Frequently masses of glairy mucus are seen adhering to them, stretching often in viscid strands from one side to the other. Deposits of mucus are very apt to be seen upon the inter-arytænoidal fold of membrane at the base of the cartilages of Santorini, and must not be mistaken for ulcers.

The epiglottis is frequently thickened, sometimes to four or five times its normal dimensions, with more or less alteration in its shape, and loss of symmetry, so that it has a nodulated and spongy appearance. The epiglottis is very apt to have some erosions upon its edge, even when no similar appearances can be seen elsewhere. In severe cases, however, the mucous membrane is usually ulcerated in several localities; most frequently upon the posterior laryngeal wall, the ary-epiglottic folds, and upon the posterior portion of the vocal cords; and irregular papillary excrescences often mark the site of these ulcerations.

Syphilitic ulceration cannot be said to have any specific appearances distinguishing it from that occurring in tuberculosis. The edges of the syphilitic ulcers are perhaps more frequently sharper in outline, the surrounding tissue redder in color, and the superficies of the ulcer less regular in appearance. When the trachea is involved, the membrane covering its rings is reddened, and the color of the intervening spaces deepened into a darker red. Ulceration in the trachea can sometimes be detected with the laryngoscope, but, seen as it is in perspective, it furnishes only a vague idea of the extent to which this ulceration may have progressed; the post-mortem examination frequently revealing a much greater amount of destruction than the laryngoscopic appearances would have led us to suspect during life. The laryngeal ulcers are sometimes of considerable extent, and are usually covered with a grayish- or ash-colored pus; when situated near the points of articulation of the cartilages with each other, they are usually associated with perichondritis and necrosis of the underlying cartilages. In tuberculous cases the ulcerations heal very tardily, and often reappear in the same or in other localities. The syphilitic ulcer, when once cicatrized, usually remains healed. Ulceration, independent of any constitutional taint, is cured readily and permanently, as a rule, under appropriate treatment.

Sometimes the pyramidal sinuses and the valleculæ between the tongue and the epiglottis also participate actively in the diseased condition, and are seen to be inflamed, and at times even ulcerated. Ulcers in these situations are generally more readily amenable to treatment than the intra-laryngeal ulcerations. In the course of the disease, the pharynx, palate, and adjacent structures are apt to become involved, if they have not been affected early in the complaint; and the ulcerations here assume a character similar to that within the larynx.

Chronic laryngitis occasionally produces a condition known as stenosis of the larynx, either by extensive deposits of the products of inflammation in the sub-mucous laryngeal tissues, or as a result of the contraction of the cicatricial tissue which is formed upon the healing of ulcers. This stenosis or diminution of the calibre of the tube is most frequently met with beneath the glottis, but it may be seated in the glottis itself, and also in the upper portions of the larynx; and it almost always ensues when there has been any extended destruction of the cartilaginous framework of the larynx.

The symptoms of chronic laryngitis, at first, do not present any characteristic phenomena, and are generally altogether inadequate to explain the amount of disease present, even in cases where there

is ulceration of the vocal cords; unless there is extensive ulceration of the epiglottis giving rise to dysphagia. The disease is generally attended by hoarseness of the voice, and a sense of tickling or dryness in the upper part of the throat, which gives occasion to a short, dry, hacking cough. Often it is attended with a feeling of uneasiness or positive pain in the larynx; and soreness to a greater or less degree will be felt, if the wings of the thyroid cartilage are compressed, or if the larynx is pushed back against the vertebral column. If the disease is permitted to go unchecked, these symptoms gradually become more and more distressing; the voice ultimately becomes extinguished; the cough grows more troublesome, painful, and of longer continuance, the paroxysms, towards the last, bathing the patient with sweat, and producing great debility; the expectoration is more copious, and, in ulcerated cases, streaked with blood; the pulse rises often to 120 beats in the minute; hectic and emaciation indicate the approaching dissolution. The dysphagia becomes intense as the ulceration of the epiglottis and of the ary-epiglottic folds increases in extent, so that in many cases deglutition is finally impossible, usually first as regards fluids, and later with solids also. Food swallowed is painfully regurgitated, and the thirst cannot be allayed, so that the patient often perishes from actual starvation. When the epiglottis is deeply ulcerated at the sides, a pain often extends into the ears, so great at times that the patient complains much more of the pain in the ears than of that in the larynx; and this pain is increased by swallowing, or by local applications, and is caused by irritation of the auricular branch of the pneumogastric nerve, probably from the extension of the inflammatory and ulcerative processes outwards towards the pharyngeal tissues in its neighborhood.

Hoarseness is sometimes present to a marked degree, when there is very little evidence of disease in the cords themselves. It is then probable that a paralysis has occurred, either from local irritation of the terminal filaments of the nerves of the larynx, or from interstitial inflammation between the fibres of the laryngeal muscles. Thickening of the vocal cords by interstitial inflammation, and not from vascular turgescence merely, always produces hoarseness; and their destruction by ulceration entails aphonia. On the other hand, the vocal cords may be deeply congested without producing marked hoarseness; and moderate hoarseness only may ensue even upon extensive ulceration of the tissues of the cords. The character of the voice, therefore, is no certain index of the condition of the vocal cords, a point which can be ascertained only upon laryngoscopic inspection.

Many cases of chronic laryngitis appear to occur without being preceded by the acute disease in any of its forms. The patient is in comparatively good health; and, without exposure to cold, or any other accountable cause, gradually recognizes that there is some slight trouble in his throat. There is an occasional and often momentary huskiness of the voice in speaking; an occasional expectoration of a small pellet of viscid mucus, with a sense of dryness in the throat; at times a feeling of impediment to respiration at night, the patient awakening with a sense of suffocation, a sensation which is usually relieved by swallowing saliva or a draught of water. These, perhaps, may be the only inconveniences that the patient experiences, until, after a while, soreness supervenes, with increased expectoration, perhaps with a partial subsidence of the feeling of dryness. In this condition, the state of chronic laryngitis having become permanent, the patient may continue for years, suffering but little with his throat, except when the symptoms have been aggravated by powerful exercise of the vocal organs, or by undue exposure.

There is a form of chronic laryngitis sometimes met with, most frequently in adults between twenty and forty years of age, which, although attributed by the patient to a severe cold, or sore throat, as the initial disturbance, seems to be due in a great measure to sumptuous living, with the abuse of condiments, and the free use of alcohol. The mucous membrane of the pharynx, palate, and palatine arches is found relaxed and puffy; the tonsils often slightly enlarged; and the uvula is generally relaxed to a slight degree. There is often no follicular pharyngitis present, but the entire membrane of the pharynx and naso-pharyngeal region is of a deeper color than is normal, and appears swollen and bulged forward from the effusion of lymph that has occurred in it. The entire larynx is always found congested, and the vocal cords have a pink or red color instead of being white. This redness of the cords is most marked at their arytænoidal insertions, so that the maculæ flavæ appear as maculæ rubræ. The mucous membrane over the cartilages of Santorini is quite red and infiltrated, and this condition may extend along the whole ary-epiglottic fold. An accumulation of very viscid mucus upon the inter-arytænoid fold gives rise to ineffectual coughing, which keeps up the congestion of the larynx. The hoarseness, in this complaint, is marked and constant; less evident often in singing than in ordinary conversation; more marked early in the morning, and after a meal. There is usually a feeling of fulness in the throat, with a consciousness of the presence of phlegm. There is no pain, but a constant uncomfortable annoying sensation in the throat. The expectoration is slight, and the sputa are usually quite firm and of a yellowish color.

In other cases the expectoration is much more profuse, interfering with sleep; and there may be more or less derangement of nervous and gastric origin. This condition is very often termed a chronic catarrhal laryngitis.

Inhalations of iodine or carbolic acid, or a combination of the two, or of the muriate of ammonia, have proved a most efficient mode of treatment for these conditions. The diet must often be restricted, condiments avoided, and stimulants interdicted; and the general health improved by appropriate alterative and tonic treatment. The local treatment, when required, does not differ from that to be recommended for chronic laryngitis in general.

THE CHRONIC LARYNGITIS OF PHTHISIS.

The lecturer does not believe in the existence of any distinct disease to be called "laryngeal phthisis," whether it be destructive ulceration of the laryngeal mucous membrane so often observed even in the early stages of general phthisis, or whether it be the extensive chondritis or perichondritis of the older authors. He is inclined to think it altogether doubtful if ever a case existed in which the tuberculous disease was confined to the laryngeal structures. Simple chronic laryngitis, catarrhal or ulcerative, is often a curable affection; but its occasional resistance to treatment, or persistence in spite of it,—proceeding gradually from bad to worse until it produces a characteristic group of subjective symptoms,—cough, dyspnœa, purulent expectoration, and finally diarrhœa and hectic,—has led many to the opinion that there exists a special disease in which tubercle is limited to the larynx.

It is still a mooted question among pathologists whether an eruption of real miliary tubercle ever takes place in the lining membrane of the larynx. Rindfleisch* admits the possibility of such an occurrence, but states that the miliary tubercles are so few, and can be so rarely detected, that they must be regarded as a very insignificant factor in the production of the ulcerative process of "laryngeal phthisis." The enlarged mucous glands of the laryngo-tracheal mucous membrane, which have been hyperplastically distended with retained secretions by the long-continued catarrhal inflammation present in all these cases, must be considered as a non-tuberculous element. The presence of these inflammatory products in the glands speedily leads to their ulcerative destruction; and, by the confluence of several of these ulcers, we have that racemose form produced so generally considered as characteristic of the "tuberculous" ulcer.

In opposition to these views are the statements of several recent observers, familiar with the use of the laryngoscope, who claim to have detected tubercles deposited in the mucous membrane of the larynx early in the disease; and we find Gibb† and Marcet‡ actually depicting them in their illustrations of the laryngeal image. From the preceding explanation, there can be scarcely any doubt that the nodules, so large and numerous as to be plainly visible to the unaided eye, must have been enlarged mucous follicles. The lecturer stated that he had frequently observed, however, in tuberculous patients, groups of enlarged glands over the arytænoid cartilages, the corpuscles of Santorini, and upon the lateral walls of the larynx, which presented somewhat the appearance described and depicted by the authors in question; but that he never had had reason to believe them to be tubercles, but had held them to be prominent glands, to the external coloration of which a yellowish tinge had been given by the tension of the mucous membrane over them. A similar appearance is often found in some simple inflammations occupying the inside of the lips and the cheeks.

Some cases of pulmonary phthisis are subject to intercurrent attacks of ordinary catarrhal laryngitis, the latter being wholly unconnected with tuberculization. Cases of chronic laryngitis of this nature are amenable to the same treatment as chronic laryngitis unassociated with tubercle; and they are carefully to be differentiated from tuberculous laryngitis, on the score of efficient prognosis and the liability of crediting therapeutic remedies with capabilities which they do not possess.

(To be continued.)

* Pathologische Gewebelehre, 2. Auflage, p. 330.
† Diseases of the Throat and Windpipe, second edition, London, 1864.
‡ On Diseases of the Larynx, London, 1869.

ORIGINAL COMMUNICATIONS.

FOUR COMPLICATED LABORS.

BY HORACE WILLIAMS, M.D.

PLACENTA PRÆVIA—FORCEPS.

MRS. F., in the last month of her fourth pregnancy, sent for me one morning, having lost considerable blood per vaginam through the night. I found her pale and languid, but up and about,—the hemorrhage having ceased; but, her three previous pregnancies having been entirely normal, I made an examination. There were no pains, nor signs of labor. A half-inch of cervix remained, and the finger, readily entering the relaxed os, encountered something intervening between it and the presenting part of the child, which, from consistence and feel, gave little doubt of the existence of a placental presentation. In the absence of hemorrhage and all signs of labor, the horizontal position, with gallic acid and acid. sulph. aromat. internally, was directed. The next morning a similar loss of blood occurred, but had ceased on my arrival, and the absence of pains again suggested non-interference. Beef-tea, milk-punch, and absolute quiet were enjoined. The next morning a hurried message summoned me to Mrs. F., whom I found in a state of syncope, from a most alarming hemorrhage, still in progress. Immediately passing my hand into the vagina, it was discovered that labor was inaugurated, the cervix taken up, and the os, commencing to dilate, seemed entirely covered by the placenta. In the syncopal condition, relaxation of all the parts was so complete that dilatation was rapidly accomplished by the hand, with partial separation of the after-birth, and rupture of the membranes. But little liquor amnii escaped, as pressure upon the fundus and feeble uterine contractions now caused the vertex to engage in such a way as to plug the os, and by pressure on the detached segment of the placenta to check the hemorrhage. The mother's exhaustion was, however, extreme, and rapid delivery seemed called for, on her account and the child's as well. So, without further delay, I applied the forceps, and delivered her of a living child, which, while far gone, was resuscitated, and throve subse-

quently. The placenta followed without trouble, and showed its segment of detachment about the os and cervix to have been one-third of its area, and the implantation right lateral and posteriorly. Mrs. F's. lying-in was without drawback, and lactation was very free. Anæmic palpitation, tinnitus aurium, and swelling of the feet were subsequently annoying, but yielded readily to iron and quinia.

PRESENTATION OF FOREARM, WITH PROLAPSE OF CORD —VERSION BY THE HEAD, WITH REPLACEMENT— FORCEPS.

When called to Mrs. H., in labor with her first child, I found that pains had regularly recurred for several hours, increasing in strength and frequency, but had ceased with one which had ruptured the membranes, about twenty minutes before my arrival. On making an examination, I found one hand, apparently the right, and the forearm, with quite a long bunch of the cord, resting in the vagina. In the absence of pains, and the relaxed condition of the os, the hand and loop of the cord were readily replaced, and, recognizing the head of the child lying in the left iliac concavity, my hand exteriorly assisting, it was brought down to engage, where a timely pain fixed it. Not knowing how far the cord might still be under pressure, and the child likely to suffer, in the protracted delivery of a primipara, I applied the forceps, and, with as much rapidity as seemed safe to the mother, delivered her of a living child. Convalescence took place without any notable feature.

DROPSY OF THE AMNION—PREMATURE LABOR—SHOULDER PRESENTATION—VERSION BY THE FEET.

Mrs. M. sent for me in her fourth pregnancy, one month in advance of her calculated time. She stated that she had been more delicate than usual through the previous months; had had little swelling of her limbs, but that her abdomen was as large or larger than previously at full term. She had for years been troubled with a chronic prolapse of the bladder, with the anterior wall of the vagina, adding much to her discomfort at this time, and perhaps complicating the sequel. Pains had set in that morning, and at noon the os was half dilated, and a segment of abnormally thick membranes engaging, but neither per vaginam nor by abdominal palpation was I able to satisfy myself of the position of the child. There was more fluctuation than normal in the uterine tumor, and palpation gave the idea of a longer transverse than vertical diameter. The os being now dilated, with some misgivings the membranes were ruptured, when there immediately took place a flow of liquor amnii, which, deluging the bed, ran over its side in three streams, partly filling as many utensils placed for its reception. It now became apparent that the presentation was one of the right shoulder, the head resting in the left iliac concavity, the body of the child being transverse. Conceiving that version would be more safe with the use of ether, I sent for Dr. Cleemann, and, in his absence from home, for Dr. Curtin. Both subsequently arriving, we proceeded to administer ether, preparatory to version by the feet. The right hand passed to near the fundus found both feet without difficulty, but traction was first made upon the left limb in view of the right shoulder presenting. As it rose from its engagement at the os, both feet were grasped, and by strong traction brought down to the outlet, the body and shoulders following. The delivery of the head was arrested by the chin against the pubis, and probably somewhat by the engagement of the prolapsed bladder at the outlet. The delay was such that the child was resuscitated with exceeding difficulty. There was no subsequent retention of urine, and convalescence was rapid. Had not the diagnosis of the position been rendered uncertain by the excess of liquor amnii in this case, bipolar version prior to the rupture of the membranes would undoubtedly have been the preferable procedure.

PROLAPSE OF THE CORD, COMPLICATING A FOOTLING PRESENTATION.

I was called at 9.30 A.M. to Mrs. T., who had been in labor with her fifth child since 2 A.M. Examination revealed a segment of unruptured membranes protruding at the vulva, which being ruptured, a loop of the cord was found occupying the vagina, the presentation being that of both feet. The pulsations of the cord indicating that the child was suffering by pressure somewhere above, it was thought safer to hasten delivery by traction on the feet, rather than lose time in any perhaps futile efforts to replace the cord in the knee and elbow position. The lull of the pains caused by rupturing the membranes was of short duration when traction was once commenced. They became frequent and vigorous, and in less time than the recital occupies the child was delivered,—apparently, however, none too soon, as a half-hour of douching, mouth-to-mouth respiration, and the Marshall Hall method, was requisite to establish breathing.

1711 PINE STREET, March, 1873.

LARGE DOSE OF CHLORAL.

BY G. TROUP MAXWELL, M.D.,
New Castle, Delaware.

AN instance in which an enormous quantity of chloral—at least two hundred and ninety grains—was taken without apparent ill effect, occurred recently under my observation. It seems to me sufficiently interesting and instructive to merit publicity; and I therefore place the facts before the profession.

A gentleman who is laboring under a complication of diseases had been for perhaps two months taking chloral at bedtime, to procure sleep, in quantities varying from fifteen to thirty grains at a dose. Latterly he had taken thirty grains oftener than a less quantity, and that dose would frequently cause him to sleep until about noon the next day. Having remonstrated against his taking a larger dose than was required to give him sleep through the night only, he was directed to confine the dose to fifteen grains, which was to be repeated if necessary.

On the 1st of February a single dose of fifteen grains was procured, which was administered to him early in the night; but a four-ounce phial, in which seven drachms, or four hundred and twenty grains, were dissolved in syrup, was also gotten from his druggist. The phial was labelled "fifteen grains to the teaspoonful." A teaspoonful from this phial was given to him after an interval of less than two hours from the taking of the first dose. His wife, who was suffering with headache, then went to bed, and, after sleeping a while, heard her husband at the stand on which the phial was. In reply to her inquiry "if there was anything she could do for him," he said, "No; I am only taking a teaspoonful of chloral;" then, returning to bed, he quickly fell into profound sleep.

Next morning the wife discovered that her husband had taken *more than half the contents of the phial.* Not appreciating the nature of the case, and not perceiving anything unnatural in his appearance or sleep, her alarm was not excited until my visit at noon, when, if there had been danger, it had all passed; for he was then sleeping naturally and quietly, and was easily awakened, but quickly lapsed into deep sleep again. Thus he continued until about six o'clock P.M., when he became fully aroused, under the impression that he had been sleeping only three hours.

Upon a careful measurement of what remained in the phial, I found one ounce and three drachms, or about one hundred and forty-five grains. He had taken, therefore, *about two hundred and sixty grains at one time,* and in all, that night, two hundred and ninety grains! The phial was resting upon a stand which had a marble top and was surrounded by oil-cloth; and, as the solution was a thick syrup, if any had been spilled it must have been seen. A careful examination was made, and there was no evidence that any of the solution had been lost. I concluded, therefore, that the whole of it was swallowed; which is by far the largest quantity of chloral I have ever known or read of being taken by one who was not in delirium or convulsions, or not in great suffering, and would seem to indicate that the limit of its harmlessness may be much further extended than has hitherto been supposed.

[A case in which four hundred and sixty grains of chloral were taken, without fatal effects, was reported in the number of this journal for October 15, 1870, p. 23.—ED.]

MIASMATIC INFLUENCE AS A CAUSE OF SWELLED TESTICLE.

BY D. HAYES AGNEW, M.D.,
Professor of Surgery in the University of Pennsylvania.

THE influence of miasmatic causes in the production of certain inflammations sometimes appears in very unexpected directions. The two cases subjoined will serve to illustrate a manifestation quite unique to myself.

Case I.—Mr. ——, a gentleman from California, a few days after his arrival in Philadelphia, was attacked with orchitis. The most direct inquiries failed to elicit any evidence of syphilitic, gonorrhœal, or strumous origin. The pain was intense, shooting upwards along the course of the spermatic cord, and with suffering in the lumbar region. The gland became very much swollen and exquisitely sensitive.

Leeches were directed over the cord, a purge administered, anodyne lotions applied to the parts, and full doses of anodyne to allay pain and secure rest. To my astonishment, no alleviation was experienced; profuse perspiration set in towards evening, preceded by cold feet, but no distinct, well-pronounced rigor. Somewhat annoyed at the singular obstinacy of the case, I again instituted a careful inquiry into the circumstances attending his journey, and found he had been some time on the Isthmus. Catching now at the possibility of a miasmatic origin, I ordered a few large doses of quinine, when all the symptoms disappeared as if by magic.

Case II.—Mr. B., an engineer, a man of unusual physical vigor, suffered from a mild urethritis. He was directed to inject, two or three times a day, a solution of the sulphate of zinc, half a grain to the ounce of water. In a few days the right testicle became enlarged, very painful, and accompanied with rigors and febrile disturbance. Supposing the case was one of propagated urethral inflammation, leeches were ordered, and a thorough application of the nitrate of silver made over the scrotum, his bowels opened by a cathartic, etc. Several days elapsed, and still no mitigation of the symptoms. Profuse sweating next set in; and I now recalled the case related as No. 1. On inquiry, I found he had recently come up from the South, where he had been exposed to miasm, from which several of his companions had suffered. He was now ordered eighteen grains of quinine in four doses, at intervals of two hours; and before twenty-four hours the most decided change had taken place, requiring only about thirty-six hours more for the removal of all acute symptoms and the rapid resolution of the disease.

NOTES OF HOSPITAL PRACTICE.

CLINICAL NOTES.

WILLS OPHTHALMIC HOSPITAL.

SERVICE OF GEORGE C. HARLAN, M.D.

Reported by W. H. WINSLOW, M.D.

RETINITIS PIGMENTOSA.

A. H., a woman, æt. 45 years, of nervous temperament, came to the clinic in January, 1873, complaining of defective vision. Upon inquiry, no hereditary predisposition to blindness could be traced. Her father died æt. 60 years, of senile gangrene, and her mother, æt. 90 years, of old age, and could see to sew up to the time of her death without glasses. The patient had one brother living, with perfect vision, and she could not say whether or not there was any consanguinity between her parents; though she believed there was none. She said "that ten years before, one evening at dusk, she was picking cherries in a garden with a merry company, and, as she approached the tree, she struck her face against the trunk, which excited the laughter of her companions, and much annoyed her."

Shortly after this, she visited a benevolent club to pay her dues, and when the change and her card were returned she was unable to see either, although the room was brilliantly lighted with gas. Again, one even-

ing, in a chamber where the gas was burning dimly, she attempted to give a sick person a glass of water, but could see neither the patient's mouth nor face.

Her sight became gradually more imperfect as the years passed, and hemeralopia continued a prominent symptom. One evening, in bright moonlight, she ventured out, but fell into a lime-pit filled with fresh mortar, and had never been out unattended after sunset since.

After the evening twilight her vision was completely in abeyance, and was only slightly benefited by artificial light. In looking at a large object, she saw only peripheries, which was explained by her very much contracted field of vision.

Her chromopsies were frequent and remarkable; she had distinct subjective perceptions of green, purple, and red, but no color-blindness.

Vision at the maculæ luteæ was $\frac{20}{XL}$. The fields of vision were nearly alike in outline, and had, at one foot distance, vertical diameters of seven inches, and horizontal of six.

Ophthalmoscopic examination showed lenses and humors without opacities and apparently healthy; the disks had sharply-defined outlines and were slightly atrophied, and the retinal arteries were diminished in calibre, with the veins tortuous and full.

All over the fundus of each eye, except in the region of the maculæ, were scattered the reddish-brown and black, ragged, striated masses of pigmentary deposit in the retina, increasing towards the peripheries and most extensive, as usual, at the inner sides of the disks. No roundish or oval masses, but irregular, feathery outlined islands, connected by indirect linear prolongations. Many arterial branches had deposits of pigment along their walls, occasionally overlying the vessels and hiding them for a line or two.

Slowly but surely the disease had progressed, and was progressing; the field of vision contracting, and science unable, as yet, to afford relief. She was ordered glasses of $+\frac{1}{24}$ to neutralize her hypermetropia, and directed to avoid unnecessary and excessive use of her eyes, and dismissed. Upon a subsequent visit she said "that the glasses enabled her to sew and read by daylight, quite comfortably."

TWO CASES OF PARTIAL PARALYSIS OF THE THIRD PAIR OF NERVES, TREATED BY EXTRACT OF CALABAR BEAN.

W. McC., a man æt. 26 years, in average health, and a laborer by occupation, came to the hospital November 11, 1872, with the following history: Eighteen months before, he had noticed that the pupil of the left eye was larger than its fellow, and that his sight was getting dim. There had been little change up to the time when he applied for treatment.

In the right eye the sight was normal, $V=\frac{20}{XX}$ of Snellen's types, and near vision was perfect. In the left, it was only $\frac{20}{LXXX}$, but rose to $\frac{20}{XXX}$ when a hypermetropia of $\frac{1}{36}$, which the paralysis of the ciliary muscle had made manifest, was corrected by a convex glass. The eye was useless for near vision, and the pupil dilated to more than half its full extent. There was no paralysis of any other muscle supplied by the motor oculi than the constrictor of the pupil and the ciliary muscle. He stated that he had had chancres twice, in 1864 and in 1865; but, with the exception of a pharyngeal catarrh, no syphilitic history could be elicited.

He was put upon iodide of potassium and the corrosive chloride of mercury, and the pure extract of calabar bean, merely softened with glycerin, was applied to the inner surface of the lower lid.

Twenty minutes after the application, the pupil was smaller than that of the other eye, and he could read small print with ease. Not only was the hypermetropia of $\frac{1}{36}$ overcome, but a high degree of myopia was developed by the spasm of the muscle of accommodation, and he could see distant objects distinctly through a $-\frac{1}{11}$ glass.

The extract was applied three times a week, and always produced the same effects, which subsided each time in about a day.

A solution of sulphate of atropia applied to the eye made the partial dilatation complete; showing either that the paralysis of the sphincter fibres of the iris was not entire before the application, or that atropia has a stimulating effect upon the dilating fibres, which latter is maintained by some eminent authorities.

The other case, in the person of M. B., a girl æt. 11 years, was complicated by paralysis of the internal rectus. Six weeks before her appearance at the clinic she fell heavily upon her back and remained stunned for ten minutes. Severe pain in and around the left eye supervened, with diplopia and much nausea. Two weeks afterwards her mother noticed an increase in the size of the left pupil over that of the right. Upon examination the left pupil was found dilated to a mere rim, but there was no injection of the vessels, and the eyes appeared otherwise normal. Vision in the right was $\frac{20}{XX}$. In the left it was only $\frac{20}{C}$ of Snellen, but with a $+\frac{1}{36}$ glass she read $\frac{20}{XXX}$. There was no ptosis, but marked diplopia, and the internal rectus was completely paralyzed. She was ordered iodide of potassium gr. iij three times a day, and the calabar extract was applied to the inner surface of the lower lid, as in the previous case.

In about twenty minutes after the application the pupil was contracted to one-quarter the size of the other, and she read $\frac{20}{XXX}$ of Snellen with ease. The mother stated that the pupil invariably dilated again before they reached their home in Frankford; but at each visit a slight gain could be noticed.

Applications of the extract were made every other day for two weeks, when the pupil was found to be of medium size and slightly responsive to light; she had gained some power over the internal rectus, and moved the eye considerably beyond the middle line.

To test more certainly the effects of the calabar bean, the iodide was discontinued, and the extract was applied every other day. At the end of the third week the paralysis of the internal rectus was scarcely noticeable, and the diplopia existed only above the horizontal line and to the right of the median; the pupil continuing about the same. The extract applied at this time caused in twenty minutes extreme myosis and myopia of $-\frac{1}{24}$. In another week the diplopia existed only beyond about 35° to the right of the middle line, the pupil was much smaller, and a $+\frac{1}{48}$ glass made $V=\frac{20}{XXX}$. Treatment was continued.

At the end of the fifth week the pupil continued much smaller, the field of binocular vision was increased, and she read $\frac{20}{L}$ without glasses. She ceased to attend after this time, as she no longer suffered any inconvenience.

LATENT HYPERMETROPIA.

A. R., a delicate-looking woman, æt. 29 years, applied for treatment in February, 1873. She said that up to the birth of her child, a year before, her sight had been perfectly good, but that since then she had not been able to read or sew without fatigue and pain. Her health, previously good, had not been so since confinement, and she had been obliged to give up nursing her child when he was a few months old.

Hypermetropia was at once suspected, but it was found that she could read number XX at twenty feet

distance without glasses, and that even a convex glass of $\frac{1}{6}\frac{1}{0}$ was refused for distant vision. Through a strong convex glass, she could not read beyond its focal distance. A weak concave glass seemed to improve her sight, and repeated testing with the perforated disk always indicated a myopia of $-\frac{1}{4}\frac{1}{8}$.

Ophthalmoscopic examination by the direct method showed decided hypermetropia, which, when tested after the paralysis of accommodation by atropia, was found to equal $+\frac{1}{2}\frac{1}{0}$ in the left eye, and $+\frac{1}{3}\frac{1}{0}$ in the right eye.

This case illustrates the advantage of direct examination by the ophthalmoscope, and the importance of the use of atropia in doubtful cases of refractive trouble.

Hydrophobia or Tetanus? (Gattermann: *Bayerisches Aerztl. Intell.-Blatt*, 1872, No. 41; quoted from the *Centralblatt f. Med. Wiss.*, No. 54, 1872).—A boy, seven years old, was bitten by a dog *supposed* to be rabid. The superficial cutaneous wound made by the bite of the dog on the back of the child's hand was instantly cauterized with nitric acid. The same treatment was applied to a somewhat deeper wound on the left forearm. On the evening of the same day on which the injury was received, the boy, having eaten a large amount of food of various kinds, vomited, and was said to have had some hallucinations. However, no fever could be detected, and, with the exception of a slight pain in the wound of the arm, the child remained perfectly well until the ninth day after the bite. At this time all the symptoms of tetanus set in, which were aggravated by the slightest noise, and accompanied by great dysphagia, so that neither solid nor fluid food could be swallowed. Consciousness was perfect. Two days later, with no alteration of the symptoms, excepting a greater facility for swallowing fluids, death occurred, after the most careful administration of morphia and chloral.

A post-mortem examination of the wound in the arm was all that could be obtained. The bottom of the wound was dry and brownish; no pus in the neighborhood. At two points the fascia superficialis was perforated, and the wound had penetrated the muscular tissue.

The author of the article regarded this case as one of tetanus, notwithstanding the inability to swallow, and not as one of *hydrophobia humana*, in which supposition he is sustained by the short incubation,—eight days,—the high temperature observed during the disease, the tonic spasm of the muscles of deglutition and of the muscles of the trunk, and the persistence of consciousness.

There were three other children bitten by the same dog; but after the expiration of sixty days they were still perfectly well.

The Extraction of Foreign Bodies in the Larynx (by Laboulbéne).—M. Laboulbéne has published, in connection with a case seen by him in the Hôpital Necker, an article in the *Bulletin de Thérapeutique* on foreign bodies in the larynx. We give below the classification and the conclusions arrived at. Foreign bodies in the larynx may be divided, according to their seat, into three classes:

a. Foreign bodies above the glottis { vestibular / ventricular.

b. Foreign bodies within the glottis.

c. Foreign bodies below the glottis.

In regard to their extraction, the following are the rules by which the surgeon should be guided:

1. When the danger from asphyxia is imminent, the trachea should, without delay, be freely and boldly opened.

2. The respiration having been re-established, a diligent search should be made for the foreign body by exploring the larynx, with sounds and the laryngoscope, from below upwards and from above downwards. The entrance of the larynx and the ventricles must be inspected, and for the extraction of the body instruments of suitable strength should be introduced, either through the wound in the trachea or through the larynx.

3. A foreign body within the glottis may not, even if it be of considerable size, cause symptoms of asphyxia immediately.

4. The operation must be done as soon as possible: hope ought not to be given up; for it is never too late to act, even if there be but a slight chance of saving the patient.

Laryngoscopic Operations (C. Michel: *Deutsche Zeitschr. f. Chirurg.*, i. 312–317; *Centralblatt f. Med. Wiss.*, No. 31, 1872).—The case under consideration was one of extensive papilloma, which occupied the anterior third of the inferior laryngeal cavity, and passed in a crescentic shape from the right inferior to the left inferior surface of the vocal cords. It also extended from the right ventricle of Morgagni, and covered one centimetre of the anterior superior surface of the right vocal cord. Two small nodules two or three millimetres in size occupied a position close under the free edge of the processus vocalis and opposite to the external surface of the left glottic ligament. This tumor produced in one year total aphonia. During intonation the glottis remained open. The excrescences on the right vocal cord inserted themselves into it. In about sixteen sittings the tumor was taken away, in one hundred and ten pieces, varying from the size of a pin's head to that of a pea. In one year complete recovery took place; only a small elevation, as large as a pin's head, remained under the angle of the vocal cords, but there was no interference with intonation.

Resection of the Knee-Joint after Gunshot Wounds (Lotzbeck: *Aertzl. Intell.-Blatt*, No. 31 u. 32, 1872; quoted from the *Centralblatt f. Med. Wiss.*, No. 38, 1872).—In order to form a just estimate of the practical value of resections of the knee-joint in the field, Lotzbeck has collected all cases of such operations which are scattered through the surgical literature of Germany.

Before the late war, 50 cases, with 35 deaths,—70.0 per cent. In the late war, 16 cases, with 13 deaths,—81.3 per cent. Total, 66 cases, 48 deaths: mortality, 72.8 per cent.

If we compare the amputations of the femur in the lower portions of the bone, with resections of the knee-joint, we shall find that the advantage is in favor of the former; for the mortality is only 60 per cent.

In addition, we must also consider that the limb after resection is not very useful. The author thinks that in the field the amputation of the femur at the lowest possible point is preferable to resection of the knee-joint.

Foreign Body in the Œsophagus (by Cauchois: *Le Mouvement Médical*, Nov. 9, 1872).—A man, 27 years of age, was suddenly, and without any known cause, taken with dyspnœa, pain in the throat, and cough unaccompanied by expectoration.

Examination of the patient's throat and lungs, made on the 25th of August, when he was admitted into the Hôpital Lariboisière, was attended with negative results.

A goitre was observed, which had existed since the patient was a child, but it was too movable and too small to exert any pressure upon the trachea. Attacks of dyspnœa recurred, and the patient died suddenly.

At the autopsy, a foreign body, the nature of which was not determined, was found in the œsophagus, pressing upon the posterior part of the larynx.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

THE HARVARD MEDICAL SCHOOL.

AMONG the changes constantly taking place in the development of our national character, those affecting the various departments of our educational system are of marked importance. By no means the least decided of these are observable in the training of our young men for the medical profession. A comparison of the advantages offered to the students of twenty, nay, of ten, years ago with those enjoyed by the students of to-day, at any of the leading schools, will show a very marked improvement, which cannot but make itself felt in the standing of the graduates in the community.

The managers of the medical department of Harvard University are trying, we should like to believe with satisfactory prospects, a system of teaching radically different from that of any other school, at least in this country. They have substituted for the usual winter session an academic year, beginning on the Thursday following the last Wednesday in September, and ending on the last Wednesday in June, being divided into two equal terms by a recess of one week; there is also a week's recess at Christmas. Besides this, instead of a yearly repetition of the same course of lectures on each branch, the studies are so arranged as to carry the student "progressively and systematically from one subject to another, in a just and natural order;" the entire curriculum extending over three years.

Laboratory work is substituted for, or added to, the usual didactic lectures on anatomy, histology, chemistry, and pathological anatomy. The examinations are distributed, for the regular students, over the whole three years; but others, as, for example, those desiring the *ad eundem* degree, may pass one final examination at the end of their course. The classification of the students is made upon obvious principles.

Another feature of the Harvard plan is the institution of a course of instruction for graduates in medicine, whereby they may acquire still further proficiency in various special subjects.

This experiment, which went into operation September 28, 1871, has not yet, it is obvious, been fully tried. The "third course," of gratuitous instruction to those who had previously attended two courses of lectures, ceased last autumn. No one will be allowed to graduate under the old system after February, 1874. But the result, whether successful or unsuccessful, of this bold attempt to carry out reform in medical education, will be looked for with interest by the many who have for years discussed and heard discussed, *ad nauseam*, that much-vexed question. It is by such experiments that a practical solution of the difficulties which hedge the whole subject can be arrived at.

And yet there is one most important element,—the financial,—which threatens to fatally affect the success of the Harvard school. If they can keep their classes up, and increase them by the evident value of their teachings, the Faculty may hope to find their efforts rewarded by a brilliant result. If a sordid economy on the part of students leads them to seek schools where lower fees are charged and a less expenditure of time is required, then, for this once at least, the experiment will fail. We believe that it would have been better had the Faculty, if possible, obtained from the munificence of their townsmen an ample endowment, so as to remove this chance of ill-success.

Prof. Stillé, in an admirable address recently delivered before the Alumni Association of the Medical Department of the University of Pennsylvania, thus alludes to this matter: "One institution, to its honor let it be spoken, has re-formed its whole plan of teaching upon the model which reason and experience agree in approving as the best. Much as I desire in this instance to be a false prophet, I have little fear of meeting with the fate of one, when I declare with unfeigned sorrow my conviction that the Medical Department of Harvard University, which has heroically undertaken so difficult a task without providing endowments for its professors' chairs, must of necessity fail to secure the success which its liberal policy deserves."

DIRTY STREETS.

FOR nearly three months the layer of snow which has covered our streets has buried up a vast amount of filth, which the inefficiency of contractors had allowed to accumulate, and which, in the form of most offensive dust, the wild March wind is now scattering over everything. Assuredly the people of Philadelphia are long-suffering to a wonderful degree: they placidly watch the awarding of contracts to men who do not fulfil them, and the struggles of those men to obtain the money they have not earned, as if there were no such thing as taxes, and dirt was a luxury, and the great problem was how to have the worst condition of streets at the highest price.

As the days grow longer, and the sun hotter, and the city more and more offensive, we may look for the natural results of this neglect of cleanliness, in the development of disease. In the long run it would be far cheaper to put an end to jobs and contracts,—to sell the street-dirt to those who would find their interest in its efficient removal, and to regain our long-lost reputation of having a clean city to live in and to welcome strangers to.

CAPITAL PUNISHMENT.

ONE of the outgrowths of modern civilization is a very natural disgust at the roughness and violence of the mode in which the extreme penalty of the law is enforced. And this feeling, which seems to have a certain humanitarian basis, although the "deep damnation of the taking off" of the murderer's victim ought to counteract it, is rather growing than subsiding.

It is therefore strange that modern science has not sought to substitute for the rope or the axe less rude methods of taking forfeited lives. Every schoolboy knows how calmly Socrates took his cup of poison, and with what philosophy he watched the gradual approach of death. The gallows and the guillotine are features of a ruder age than that of Grecian refinement.

Why cannot condemned criminals spend their last moments in a room in which carbonic acid is generated, by the well-known means, until life is extinct? The very silence of the process would be impressive. The murderer would simply cease to exist among men, without any opportunity for bravado, without pitting his power to endure against a stronger power to torture. The law would be vindicated, and the brute courage of the "game" convict would have no chance to infect his associates.

LEADING ARTICLES.

INSANE CONVICTS.

WE understand that a bill has been introduced into the Senate of this State for the purpose of placing in the insane hospital at Danville the insane convicts now scattered about in the jails and penitentiaries of the State. It is one of those measures which, originating in a most commendable philanthropy, are marked by such an imperfect knowledge of the conditions of the case that they are calculated to do more harm than good. This, at the very best, would substitute for one evil another and a greater. We would call attention for a moment to some of the consequences of this measure, in the hope of staying any farther progress in the movement.

A great majority of this class of criminals are people of very small moral and intellectual endowment, whose criminal acts have been prompted more by innate depravity than by insanity; though we would not deny the agency of the latter element. Some of them have even achieved distinction in the records of crime, and all are marked by a stigma that affects the whole course of their social relations. The promoters of this measure think to avoid the social objection, which they seem to have anticipated, by having a portion of the hospital insulated from the rest and prepared expressly for this purpose. But this is not sufficient. In the popular apprehension, the main features of the association remain as prominent and as odious as possible. The inmates, convict and otherwise, are all under the same roof, seeing and hearing one another, more or less, in an establishment and locality bearing the same name, and participating in some degree in common privileges. Now, on the part of those who seek the benefits of our State hospitals for the insane, there is a sensitiveness in regard to such associations which cannot be allayed by any architectural contrivances, and which will prove a very serious impediment in the way of an early resort to the hospital for curative purposes. For it must be remembered that, for the most part, though in humble circumstances, they are respectable, and not entirely destitute of a wholesome pride.

Practically, there is little similarity between the management and discipline of a hospital and those of a prison. Nobody has ever proposed to abolish this distinction, and to treat the convicts precisely like other patients. While the latter are to be treated with the utmost kindness and courtesy, and allowed the largest amount of liberty and indulgence

compatible with their comfort and restoration, the former are to be habitually treated as dangerous subjects, allowed few of the privileges accorded to other patients, and kept within the narrowest limits. The spirit, disposition, and manners required of an attendant on the former class of patients would be quite unsuitable to an attendant on the latter class. For it must be borne in mind that in regard to many, insanity has deprived them of none of their native cunning, nor of their disposition to mischief, nor of their impatience of restraint. They must constantly feel the strong hand. Now, it is idle to suppose that two such classes of attendants will serve side by side and continue to maintain the proper difference in the treatment as here indicated. The tendency would be to assimilate; and it requires no great knowledge of human nature to see what direction it would take. In an institution receiving both classes of patients, the treatment would be uniformly hard, rigid, stern, and peremptory for both.

The management of a hospital for insane convicts, in order that it may present as little of the prison and as much of the hospital element as possible, is so peculiar that it is a specialty of itself quite different from that of an ordinary hospital. We have great faith in the resources of Dr. Schultz, but we do not believe that he pretends to be fitted by taste or training to take charge of such an institution; and even if he were, it would be out of his power, with some three or four hundred others to treat, to do justice to the convict patients.

It is well known that our hospital accommodation for the insane is lamentably deficient, and consequently that many hundreds are suffering every variety of wretchedness in the jails and almshouses. It was for such that, after persevering effort, the hospital at Danville was obtained; and now that it is about ready to receive them, they are to be thrust aside to make room for those who would always prove a heterogeneous and disturbing element. The scheme is prompted ostensibly by the purest benevolence; but where the kindness comes in we are quite unable to see. Nor does there seem to be any foundation for the economical consideration. To construct a convict hospital *de novo*, by itself, would cost little if any more than it will to convert a portion of the Danville hospital into one. To be suitable for its purpose, capable of keeping its inmates safely, and affording them all possible comforts and privileges, it must consist of no makeshifts, but every portion of it, from foundation-stone to roof, must be marked by indications of its destined purpose. Not more different must it be from other hospitals in its management and discipline than in the mode and materials of its construction. The safe-keeping of the inmates is a matter of paramount importance, because many of them are dangerous subjects, ready and willing to break out when guarded only by the ordinary methods of construction.

The obvious duty of the State is to do precisely what New York and several European countries have done, viz., to establish a hospital expressly and solely for insane convicts. The bill we have been commenting on provides for fifty persons,—a number large enough to start with in a new establishment,—and for this number it might cost one hundred thousand dollars. To make the proposed changes at Danville would cost little less, and, after all, it would only be converting a good hospital into a poor prison. We trust, therefore, that the Legislature will be slow to adopt a measure not in accordance with the best views and practices now prevalent on the subject, and directly detrimental to a large class of our suffering fellow-men.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, FEBRUARY 13, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. R. M. BERTOLET exhibited a specimen of *psammoma* removed from a gentleman aged about 40 years. (A full report of the case will appear in a subsequent number of the *Times*.)

Dr. CHAS. B. NANCREDE presented a specimen of *aneurism of the abdominal aorta*, from C. H., æt. 33 years. The patient from whom this specimen was removed first came under notice about eighteen months ago, at the Eye Department of the Philadelphia Dispensary, and complained of failing vision which had come on quite suddenly.

Upon examination by the ophthalmoscope, the *fundi* of both eyes were invisible, owing to a clouded condition of the vitreous tumor. Upon questioning, this was found due to syphilitic retino-choroiditis, the patient having confessed that he had had a chancre a number of years before, a skin-eruption since, and was then troubled with osteocopic pains.

He also had polyuria, which in time decreased. The urine was examined several times, but neither sugar nor albumen was detected.

Under specific treatment, his vision improved, the cloudiness of the vitreous having commenced to disappear; but about four months after the time when first seen, violent convulsions set in, accompanied by unconsciousness lasting for twelve hours. He entirely recovered under the use of large doses of potass. iodid. The convulsions were thought to be due to a specific tumor at the base of the brain. He continued to improve, with but few relapses, under the above treatment and Turkish baths, until within nine months of his death, when he first complained of a violent pain in his back, but was

not able to locate it exactly. He also had dyspeptic symptoms and some dysphagia. In swallowing fluids he was obliged to take small quantities at a time, as they seemed to accumulate above the cardiac orifice.

By increased doses of the iodide, and rest in a hospital, this pain in the back was greatly relieved, but it was still at times so severe as to incapacitate him for work, and generally to necessitate a sitting posture during sleep. The day before the patient's death he seemed rather worse, but continued to work; but the day following he was too unwell to do so, complaining of great pain in his right side. In the evening, about ten minutes before death, he attempted to go to stool, and, on trying to return to bed, sank on the floor and expired some minutes before I reached him.

Sectio cadaveris, thirty-nine hours after death.—Rigor mortis well marked; body well nourished, but exceedingly blanched.

The head was first examined. Vessels of scalp empty of blood; veins of the dura mater unusually full; pia mater showed the remains of a former inflammation, old lymph, etc.; brain-substance firm, showing numerous red points on section; a little fluid in lateral ventricles; some old lymph on velum interpositum. Pineal gland enlarged, having undergone mucoid softening; there was old lymph at base of brain, especially at the optic chiasm.

On opening the abdomen, an enormous clot, an inch or more in thickness, extended from the liver into the pelvis, and forward to within two inches of the median line, pushing aside the viscera. This clot was from an aneurism, which had burst primarily into the subperitoneal connective tissue beneath the cardiac orifice of the stomach. This morbid growth had produced no erosion of the vertebræ, probably because of the short time it had existed.

The aneurism was sacciform, extending from about the origin of the phrenics nearly to that of the inferior mesenteric artery. The radials at the wrist could easily be felt, showing that there must have been some degeneration of their walls. The right kidney was twice the normal size, and slightly granular. The left was smaller than normal, its capsule non-adherent, and under the microscope exhibited numerous tubules stripped of their epithelium.

The main points of interest in this case would seem to be the aneurism with the syphilitic dyscrasia, and the peculiar place of rupture, viz., the subperitoneal space. That a number of hours should have intervened between the time of primary rupture and death is remarkable. This rupture probably took place beneath the peritoneum, in the morning when he first complained of pain in the side, he having gone down into the yard to stool, and must have been small at first, gradually dissecting up the peritoneum, producing intense pain. The straining during the last act of defecation must have enlarged the opening in the sac. The peritoneum then gave way, and a large quantity of blood was suddenly effused into the abdominal cavity, producing sudden death both from the amount lost and the shock of the injury.

Dr. H. Lenox Hodge exhibited a specimen of *bony anchylosis of the right hip*. No history could be obtained. The femur was of large size, but the ridges for muscular attachments were slight and smooth. The muscles of the thigh therefore could have been but little used. The neck of the femur was slightly shortened. The head of the bone was firmly united to the acetabulum, and rested at the anterior and upper portions. The os innominatum was comparatively small, and not so well developed as the femur.

The position of the united bones was such as to produce adduction and outward rotation of the femur.

The specimen is interesting chiefly in reference to the operations lately revived and suggested for restoring the usefulness of the limb when anchylosed in such a position as to render it useless. Dr. Barton made a section of the femur between the trochanters. Dr. Rodgers removed a segment of bone at the same location. Dr. Sayre has also removed a segment of bone from the same position, but rounded the surfaces so as to leave a concavity on the upper fragment to meet a convexity on the lower fragment of the femur. In these operations large external incisions were made to expose the bone. Mr. Adams in 1869 divided the femur subcutaneously by means of a small saw made after the form of a tenotomy knife. This plan appears to have greatly reduced the dangers of the operation; but it gives less promise of a movable joint. After the other operations motion was not always obtained, and has been lost even after six years, as in Barton's case. If the limb be restored to a good position, it becomes very useful, although there may be no motion. The operation of Mr. Adams is to be preferred, as it is less dangerous, is less apt to be followed by necrosis, and gives a useful limb. Mr. Adams divides the femur through the neck, while the others have sawn it between the trochanters. If the anchylosis be really bony, one position is probably no more dangerous than the other. If the deformity be chiefly due to flexion of the thigh on the pelvis, it will be overcome with the least possible displacement of the fragments from each other by making the section through the neck of the femur. If, however, the deformity be due chiefly to rotation of the limb, there will be less displacement when the section is made between the trochanters.

Dr. John Ashhurst, Jr., said, in answer to a question, that he thought it very doubtful whether bony union was ever met with in cases of unimpacted intra-capsular fracture of the cervix femoris; many specimens, which had been supposed to exhibit osseous union after fracture, had been found when sawn open to be examples of other lesions entirely unconnected with fracture, while in other examples it might be that, as in a specimen referred to by Prof. Sayre,* the ligamentous connections were so close and firm that, in the dry condition, osseous union was simulated. In cases of *impacted* fracture, however, Dr. Ashhurst had no doubt that true bony union could occur; in fact, there was a specimen in the museum of the College of Physicians,† which had been reported on by Dr. Packard, Dr. Hewson, and himself, which illustrated this condition; and other examples were mentioned by Prof. Bigelow,‡ of Boston, in his well-known work on injuries of the hip.

Dr. J. H. Hutchinson presented specimens of *tubercular ulceration of the larynx, amyloid kidney, and amyloid and fatty liver*, from a woman, æt. 40, dying of phthisis. (A full report of the case will be published later in "Hospital Notes" of this journal.)

Dr. Joseph G. Richardson said that, notwithstanding the increased quantity of connective tissue about the Malpighian corpuscles, there was no diminution in the size of the latter. He suggested that this might be due to the presence of amyloid matter in the capillary tufts of the body resisting the contraction which usually occurs.

Dr. James Tyson asked Dr. Hutchinson whether he thought there was any necessary relation between the amyloid degeneration and the increased amount of intertubular connective tissue, or whether the two conditions were not merely coincident. He doubted whether the so-called amyloid matter ever became fibrillated.

Dr. Hutchinson thought there was a causal relation.

Dr. Richardson said that he considered the amyloid matter might act as an irritant, causing proliferation of the intertubular connective-tissue element; in which

Dr. Hutchinson concurred.

* Trans. Am. Med. Association, vol. xxiii. (1872), p. 486.
† Trans. Coll. Physicians, vol. iv. (N. S.), p. 317.
‡ Mechanism of Dislocation and Fracture of the Hip, p. 118 *et seq.*

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

Reported by JAMES S. BAILEY, M.D.

SPECIAL MEETING, February 25.

A MEETING was called for the purpose of taking suitable action in reference to the death of Dr. Uriah G. Bigelow, a member of this Society for the last twenty-seven years. Appropriate remarks were made by the president and many of the older members of the profession. The Society then adjourned to meet and attend the funeral in a body, February 26.

SEMI-MONTHLY MEETING, February 26, 1873.

DR. ALBERT VAN DERVEER, PRESIDENT, in the chair.

The subject for discussion was *paracentesis thoracis*, a paper on this subject having been read by Dr. E. H. Davis. (See this journal for February 15, 1873, p. 316.)

Dr. HENRY MARCH reported eleven cases as having been operated upon by his father, the late Dr. Alden March. The relief to five of the cases was only temporary, they having died within a few months with tubercular phthisis. One died with cancer of the lungs. Nine were adults, and two were children. In four cases there was serum in the chest; in three, pus; the rest, sero-pus. In all the cases the trocar was used.

Dr. M. M. LAMB reported the following case of *spontaneous* effort of nature for the relief of empyema. L. N., æt. five years, six months ago had scarlet fever, which seemingly terminated favorably, but was subsequently followed by diarrhœa, cough, and general wasting of the tissues of the body. There was dyspnœa. In three months from the attack an abscess formed about the fifth rib, which broke, and a quart of pus escaped. The child now seems well and fat, although the fistula still remains unhealed and a slight discharge of very offensive matter still escapes through the opening.

Dr. JOSEPH BLATNER then read a translation from the German, by Oppolzer, upon this subject.

Dr. WILLIAM HAILES gave the history of a man who enlisted in the army in 1861, who had an attack of pleuro-pneumonia. When several weeks had elapsed, the physical signs indicated pus in the left side. He was operated on between the fifth and sixth ribs, and the fistula remained open for several years, the patient enjoying fair health during this time. Two and a half years ago it closed, and the matter collected again. An operation was performed the second time in the sixth intercostal space. A gum-elastic catheter was introduced, and the cavity injected with warm water and a few drops of carbolic acid by means of a Davidson's syringe. The man did well, and in a few weeks was enabled to leave the hospital and return home. Three months ago he died with tubercular phthisis of the right lung; the left lung was atrophied, and the pleura was greatly indurated and thickened.

The ribs were on this side much contracted with a slight lateral curvature of the spine.

He then related the case of an incised wound through the pleura. A man in an altercation was struck upon the scapula with the point of a sharp knife, which was reflected along until it slipped through between the ribs and penetrated the pleura. Emphysema took place, which in a few days subsided, and the breathing became natural. In a little more than a week the patient was discharged.

The PRESIDENT then referred to the establishment of thoracic fistula which takes place in nature in the healing of gunshot wounds. He then referred to eleven cases, coming under his observation, of gunshot wounds in the chest during the war. Nine recovered, and two died. The track of the bullet healed without pus. One recovered in two weeks. In seven that recovered, empyema and pus flowed through both openings. All of them were relieved in the course of a year.

Dr. VAN DERVEER then exhibited a pathological specimen of effusion of blood in the brain, with the following history. J. S., æt. 65, an intelligent man, had studied both medicine and law, but was fond of wine, etc.; had lived an irregular and, for the past year, a sedentary life. He was a steady drinker. February 21, he retired to bed in usual health, and towards morning aroused his family by stertorous breathing. The doctor was summoned, and found it a case of cerebral hemorrhage. The left side was paralyzed. The right eye was sensitive to light, but the left eye was not. He lived until Tuesday, the 25th, when he expired. The autopsy revealed the remarkable fact that, considering his habits and exposures, there were no pleuritic adhesions. The right lateral ventricle was filled with blood, and the brain-substance was bored through to the surface by the pressure. The left lateral ventricle also contained bloody serum.

Dr. JAMES S. BAILEY reported a case of *meningocele*, and exhibited photographs of the same. This case occurred in the practice of Dr. M. M. Lamb, of Lansingburg, and he was indebted to him for the following history.

This child was one of twins, one being without deformity. The child lived fourteen days from birth, and continued to nurse until a few hours before death.

The tumor was one-third larger than the child's head, and its external surface had much the same appearance as the scalp, being slightly covered with hair. Internally it was covered by the membranes of the brain distended with subarachnoidean fluid.

Dr. JAMES S. BAILEY also presented a case of *lipomata*, or fatty tumors of the abdomen, occurring in the person of a German woman aged 69, causing her death by pressure and absorption of the surrounding viscera.

Two tumors, weighing together thirty-seven pounds and two ounces, occupied almost all of the abdominal space. The hereditary tendency referred to by Erichsen was observed in this family. A sister three years younger than the deceased was likewise afflicted; also a daughter, who had just passed the meridian of life.

REVIEWS AND BOOK NOTICES.

A TREATISE ON APOPLEXY, Cerebral Hemorrhage, Cerebral Embolism, Cerebral Gout, Cerebral Rheumatism, and Epidemic Cerebro-Spinal Meningitis. By JOHN A. LIDELL, A.M., M.D., etc. 8vo, pp. 395. New York, William Wood & Co., 1873.

We think the modest hope of the author, as expressed in the preface to this excellent monograph, that it will prove interesting and useful to those who read it, will be fully realized. Originally intended for insertion in a medical journal, the essay grew in the course of its preparation to a bulk exceeding the limits of any such channel, and its issue in a separate volume was wisely determined upon.

Dr. Lidell, after quoting the various definitions of apoplexy, as given by standard authors, offers the following: "Apoplexy is a disease of the brain which is characterized by the sudden abolition of consciousness, feeling, and voluntary motion, and is produced not by injury, nor by poison, nor by heat, but by some morbid action in the brain itself."

"It essentially consists," says he, "in the sudden occurrence of complete functional inactivity of the cere-

brum, as a consequence of disease." He justly objects to the use of this term to designate extravasations of blood in the lungs or elsewhere, especially on the ground that in the brain it does not by any means imply hemorrhage.

The varieties of true apoplexy are—congestive, serous, hemorrhagic, embolic, and nervous. Besides these there are certain special forms,—meningeal, infantile, gouty, and rheumatic.

In Chapter II., on the pathogeny of this disorder, our author inclines to the view that it is substantially a condition of anæmia, the brain being embarrassed, by pressure or otherwise, so that the due amount of blood cannot be taken up and utilized by it for the purpose of its nutrition and due performance of function.

A very interesting discussion of the causes of apoplexy, in Chapter III., contains some striking facts as to the influence of sex, of age, of the use of alcoholic liquors, of hereditary predisposition, and of various diseases, in favoring its occurrence.

The succeeding chapters, on the various forms of the disorder, are to a very large extent clinical, containing notes of sixty-two cases, with autopsies, forty-four of which occurred in Dr. Lidell's own experience. We should be glad to make copious extracts from the fund of information and sound reasoning in these pages, but our limited space forbids, and we really are at a loss to select any passage to the value of which the context would not be essential. We shall confine ourselves to adducing some of the statements of our author as to epidemic cerebro-spinal meningitis.

This, he contends, is not an idiopathic, primary, or essential fever, but a local phlegmasia, upon which alone the febrile excitement, when present, and all the other symptoms, depend. It may follow other diseases, such as pneumonia or camp diarrhœa; or surgical operations, or exposure to intense cold. It differs materially from typhus and from the ordinary paludal fevers. A recent outbreak of it in New York seemed to be traceable to (1) lowness of temperature; (2), humidity of the ground and atmosphere; (3) foul sewer-gases and imperfect house-drainage; (4) over-crowding and attendant evils; (5) want of adequate house-ventilation.

We must now bring this brief notice to a close, heartily recommending the work of Dr. Lidell to the profession as one of very great value, and hoping that he will soon give us further instalments of his "quota of work," as in his preface he promises to do.

A Treatise on the Theory and Practice of Obstetrics. By William H. Byford, A.M., M.D., etc. Second Edition; Thoroughly Revised. 8vo, pp. 465. New York, William Wood & Co., 1873.

Arbolan, the Moorish hero of many a Spanish ballad, was a diamond among scimetars, and yet graceful in the dance:—

> "Diamante entre los alfanges,
> Gracioso en baylar las zambras."

Very few medical writers of the day resemble Arbolan the Moor. Of those few Professor Byford is not one; for, however cunning with the scimetar, in the dance of style he exhibits but little grace. Yet in this the second edition of his work on obstetrics he has more than redeemed the pledges given in the preface. He has certainly "improved the occasion to thoroughly revise the whole and rewrite a portion of it. He has also made quite a number of additions which he thinks [and we think so too] will increase the worth of it."

So superior is this edition to the first that we should hardly have traced any kinship between them, were it not for certain wood-cuts which had impressed themselves indelibly upon our memory. One of them (Fig. 125) so successfully resembles nothing in the heaven above, or in the earth beneath, or in the water under the earth, that the worship of it by the Ten Tribes—including the half-tribes of Manasseh—would have saved them from the penalty of dispersion. We recommend it to Exeter Hall for exportation by the bale to Central Africa.

Notwithstanding the care plainly exhibited in the preparation of this work, we could point out many queer errors in the agreement and government of words. But this we shall not do: we are too loyal to our medical literature to cast any discredit upon an excellent manual of obstetrics, simply because its author is not well grounded in the humanities.

GLEANINGS FROM OUR EXCHANGES.

Hereditary Syphilis of the Bones of the New-Born (L. E. Dupuy, in *Le Mouvement Médical*, December 28, 1872):

1. George Wegner. Osseous Lesions in Young Infants, caused by Hereditary Syphilis: *Virchow's Archiv*, 1870.

2. Köbner. Vaccinal Syphilis: *Archiv für Dermatologie und Syphilis*, 1871.

3. Parrot. Pseudo-Paralysis caused by an Alteration of the Bones of the New-Born affected with Hereditary Syphilis: *Archives de Physiologie Normale et Pathologique*, May, 1872.

4. Waldeyer and Köbner. Hereditary Osseous Syphilis: *Virchow's Archiv*, August, 1872.

The observations of Valleix, Barpoin, Ranvier, and Guéniot have drawn attention to an alteration of the osseous system of new-born children affected with hereditary syphilis. This alteration is constantly manifest even to the naked eye, and is very distinct microscopically; and hereafter the diagnosis of hereditary syphilis can be reduced to a certainty, even in the absence of visceral or cutaneous lesions. The importance of this discovery will not escape any one: in a therapeutic point of view in syphilis of the parents, where the diagnosis is doubtful, it will become possible to institute a rational treatment with perfect knowledge of the cause; in a medico-legal point of view it can be distinctly affirmed whether or not the new-born child is affected with hereditary or acquired syphilis. Finally, M. Parrot has shown that the progress of the alteration of the bones may, by causing a separation of the epiphyses, produce a pseudo-paralysis or loss of power, more or less complete, of the limbs. What, then, are the characters of these alterations of the bones? Throwing aside the sub-periosteal lesions, which are not constantly present, we will draw attention to the changes seen on section of the long bones. The description given by M. Parrot is so remarkable that we will give it in full.

These alterations affect the extremities, and attack the epiphyseal cartilage and the diaphysis. It may be said that they represent in their entirety an amplification of the physiological arrangement; this, in the wolf, is to a certain extent the normal condition. Thus the cartilaginous plate is much thicker than usual; it may be doubled, even quadrupled. Its transparency and softness are very marked. Its consistence, which is not everywhere the same, varies from that of the crystalline to that of the vitreous body; and it is only in very circumscribed points that it approaches the latter. Sometimes the border forms a prominence in the shape of a cushion (*bourrelet*). What is most striking, and characteristic indeed, is the cartilagino-calcareous zone. It differs much from that which normally exists, in its thickness, which is much greater, since it may attain two millimetres, but above all in its yellow-gray or even

whitish color, giving it, even in the fresh state, a chalky appearance. Instead of being distinctly defined by a straight line or gentle curve, as in healthy bones, it is very wavy or dentated, and sometimes sends prolongations towards the cartilage and towards the spongy tissue. It is also remarkable for its friability, which notably diminishes the adherence of the epiphysis to the bone.

The neighboring spongy tissue, with a thickness rarely exceeding fifteen or twenty millimetres, has undergone changes in color, and this in a very irregular manner. There are seen grayish surfaces, with spots of a more or less deep rose tint, and surfaces of a whitish or yellowish color.

When the disease is recent, the lesions, generally speaking, are limited, but when it is of longer duration they become better pronounced, and others are seen to appear. They consist, in general, of a destruction of the bony substance; affecting at first the spongy tissue, and later the compact layer itself. This result is brought about in different ways, and the parts involved present different appearances. In some individuals the processes go on separately, in others they are probably in combined operation; but it is difficult to distinguish them among the phenomena of the later stages. We shall point out the two principal, and state how they present themselves. One of them may be called gelatiniform softening. It does not ordinarily occur at the onset, being preceded by the appearance, in the neighborhood of the cartilagino-calcareous layer, of little islands of tissue, analogous to that called spongoid in rachitis. These islets may occur alone, but sometimes they cover a space of variable extent, when the bony substance is replaced by a very soft material varying in color from amber-yellow to reddish-brown, and endowed with a certain degree of transparence. It is readily perceived, by dissection with a needle, that its frame-work is fibrous and fibro-vascular, and sometimes that little bony fragments are enclosed. It may form, at the extremity of the diaphysis, a decidedly thick layer; but in the majority of cases it is very unequally distributed, occupying sometimes the centre and sometimes the periphery of the extremity of the diaphysis. On exposure to the air it completely breaks down by desiccation, leaving a cavity with quite regular outlines. In the other form a yellow substance looking very much like pus infiltrates the spongy tissue. The bony layers do not usually escape. They break down and finally become completely destroyed. A more or less extensive loss of substance follows, with the formation of cavities filled with a puriform fluid. This occurs in the neighborhood of the epiphysis, and the cartilage, if it be thin, may become destroyed. Very often there are bony fragments or true bony sequestra in the middle of the yellowish substance. It can be readily understood that this process of ulceration causes a somewhat rapid separation of the epiphysis from the diaphysis, just such as we have seen produced in the gelatiniform atrophy.

The break, in either case, does not usually occur at the cartilagino-osseous juncture, but at a point very near the diaphyseal extremity. The surfaces of the fragments are uneven; and a portion or even the whole of the chondro-calcareous layer remains adherent to the cartilage.

When the macroscopical characters are slightly marked or absent, we always find characteristic anomalies by means of the microscope. The most recent description of these histological alterations has been given by MM. Waldeyer and Köbner, who, besides confirming former observations, have made certain unexplained points more clear. The following is a résumé of their researches:

In the first place we notice a more active proliferation of cartilage-cells at the boundaries of ossification; the newly-formed cells are small, rounded, analogous to those of syphilitic production. The cartilage and zone of ossification encroach upon one another by irregular dentations; the latter arrangement is characteristic. The medullary spaces of the spongy layer of Guérin are filled with a peculiar granular tissue, difficult to describe, such as is met with in syphilitic changes in other organs, and consisting of small, rounded, angular, or fusiform elements. The consistence of this tissue varies; sometimes we find soft puriform masses, and sometimes formations of a harder character. True pus is never seen. The tissue, contrary to the opinion of Wegner, is very vascular. Finally, Waldeyer has always observed the entire absence of osteoplasts, which are replaced by small granular cells or by fusiform elements.

Sudden Grayness of the Hair (J. Pincus: *Wiener Med. Presse*, No. 2, 1873).—The author has gleaned the following facts relating to this interesting phenomenon. One case, that of a physician in Berlin, he gives in the sufferer's own words, as follows:

"My wife and daughter had gone to spend the summer in one of the neighboring baths. I was awaiting a letter informing me of their arrival and domestication in their new abode. The expected letter arrived as I was about to drive in company with my oldest daughter.

"I opened the letter, and read that my daughter had suddenly died. Instantly my hair became gray, with here and there a remaining brown one. I had to go that afternoon into the country to visit some patients, and I met those I knew, and who had seen me twenty-four hours before. They were astounded to see I had turned gray 'in a night.' I must state that I was then, always have been, and am still, a strong and healthy man."

Another case emanates from the Netherlands, on the authority of Dr. Kooman:

"A young man thirty or thirty-five years old, with black hair and beard, was in the habit of visiting me. One day he came into my office, and I was at a loss to recognize the man who stood before me, for it was my friend with hair and beard white as snow. He saw my surprise, and told me the following tale. A few weeks previous to his visit to me, while passing through the streets and canals of Rotterdam he saw a crowd of people excited and calling for help. As he drew near, he heard that a little boy had fallen into the canal. Being a good swimmer, he jumped into the water and rescued the boy, but life was extinct. He at the same moment recognized the lad as his own little son. Instantly his hair became gray."

In this instance the physician who noted the case stated that the individual hairs became gray throughout their entire length, and not merely at their roots. In such cases the author has thought that the rule is for the hairs which grow after the date of the shock to become gray, while that which is black at the time of fright remains black.

MISCELLANY.

At a conversational meeting of the Philadelphia County Medical Society, held February 25, 1873, the following resolutions, offered by Dr. H. H. Smith, were unanimously adopted:

"Whereas, It has pleased Divine Providence to remove to a happier sphere one of the most honored members of our Society, who, during a long and useful life, has ever been noted for the purity and benevolence

of his character, not only as a physician but also as a citizen of Philadelphia: therefore

Resolved, That the Philadelphia County Medical Society have recently learned with deep regret of the sudden and unexpected death of Dr. Hugh L. Hodge, Emeritus Professor of Obstetrics in the University of Pennsylvania, and one of the oldest members of this Society.

"*Resolved*, That by the death of Dr. Hodge this Society has lost a highly-esteemed member, whose skill and erudition had gained him a world-wide reputation as an accoucheur, and made him an authority in difficult cases that greatly relieved the anxious hours of his juniors, who were often led by his courtesy and high professional honor to avail themselves of his valuable assistance.

"*Resolved*, That the members of this Society, most of whom have been his pupils, recall with pride and pleasure the sound and practical precepts inculcated in his teaching.

"*Resolved*, That Dr. Wm. Goodell be requested to prepare a biographical memoir of our late member, to be read before this Society.

"*Resolved*, That the Philadelphia County Medical Society respectfully tender to his family their sympathy in their affliction.

"*Resolved*, That these resolutions be engrossed on the minutes of the Society and published in its transactions, as well as in two of the daily papers of the city, and that a copy signed by the officers be transmitted to the family of the deceased.

"*Resolved*, That, as a token of respect, this Society do now adjourn until Saturday, March 1, 1873, at two o'clock P.M., when they will meet at the Second Presbyterian Church, Twenty-first and Walnut Streets, to attend the funeral ceremonies."

DR. WILLIAM W. RUTHERFORD, an eminent physician of Harrisburg, died in that city March 13. He was born in the neighborhood of the State capital, in November, 1805, and graduated at the Jefferson Medical College in this city in 1832. For forty years past he had practised his profession with great success in Harrisburg, and since 1862 had held the position of Surgeon to the Pennsylvania Railroad Company. Dr. Rutherford was a man of the most generous disposition, and was always found ready to minister to the suffering poor, without compensation, even at the expense of neglecting those who were able to reward his services liberally.

At a special meeting of the Dauphin County Medical Society, held March 14, the following resolutions were adopted:

Resolved, That this Society receives with profound sorrow the announcement of the death of Dr. W. W. Rutherford, its oldest member.

Resolved, That, while no brief lines can do justice to his worth, we cannot allow this occasion to pass without recording our appreciation of one who, whilst a member of this Society, had been our associate, our president, and our representative to the State and National Medical Associations, thus filling all the positions of honor and confidence in our gift. He has passed away, and multitudes will mourn him: those to whom in trying hours of sickness he ministered with mingled kindness and firmness and energy; those who could understand the sterling character that underlay a sometimes "brusque" manner; those who gathered in affection around his own hearthstone; those of *us* who have admired his professional and social qualities, and who will greatly miss his counsels;—these are *some* of those who will mourn his loss and keep his memory green.

Resolved, That we tender to his bereaved family our warmest sympathy.

Resolved, That this Society attend his funeral.

H. B. BUEHLER, M.D., *Secretary*.

COMMENCEMENTS.—The Jefferson Medical College held its annual commencement on Wednesday, March 12, with a graduating class of 149. The valedictory address was delivered by Professor B. Howard Rand.

A supper was given to the graduates by the Alumni Association on Tuesday evening, at the Assembly Building.

The commencement of the Medical Department of the University of Pennsylvania took place on Thursday, the 13th, the graduating class numbering 99. The valedictory address was by Professor Francis Gurney Smith.

Prizes were given, two by the Alumni Association, and one by a liberal friend of the University, of $50 each, to the following graduates, for meritorious theses: Henry M. Estrazulas, of Uruguay, S.A., Juan y Gener Guiteras, of Cuba, and John M. Keating, of Philadelphia. A gold medal was given by Dr. H. Lenox Hodge, Demonstrator of Anatomy, to Dr. Henry B. Reed, for industry and skill in dissection, and the sum of $30 by Dr. W. Pepper, Lecturer on Clinical Medicine, to Dr. A. L. A. Toboldt, for clinical reports.

The Alumni Association of the Medical Department of the University gave the graduating class a very handsome supper on Wednesday evening, at the University Buildings on Ninth Street.

CURIOUS SUIT.—A case was recently tried in this city, in which damages were claimed from a physician for the death from smallpox of a child whom he had failed to vaccinate. The plaintiff alleged that in November, 1871, when the smallpox was first pronounced to be epidemic in this city, the doctor was casually asked to vaccinate his child, an infant not quite a year old; the doctor performed the operation, and was paid his fee. The vaccination did not succeed, and the doctor was again called upon with regard to it, but said he had not then any good virus. However, he did not perform the operation again, having been out when the child was brought to him for the purpose; and in March following the child was attacked with the disease and died. Plaintiff claimed that the doctor expressly took charge of the case, and neglected it, first in not vaccinating properly when he undertook the operation in November,

and afterwards in not vaccinating at all when he was required and promised to do it, from which alleged negligence the death of the child resulted; and for this it was sought to hold him responsible in damages. Judgment of nonsuit was entered against the plaintiff.

A Sinecure Professorship.—A correspondent of the *Lyon Médical*, after insisting on the advantages of "the remuneration of the teacher by the pupil," and on the excellent material available in Lyons for the formation of a faculty of medicine, adds that it is indispensable that the school should have a good professorial staff. "The first thing needful," he adds, "is for it to get rid of a member who occupies a chair but does not fill it. What good does this *titular professor* do, who since 1862 *has delivered but one course of lectures*, and for nine years has devolved his work upon a substitute? It is true that this professor, loaded with years, honors, and fortune, generously gives *one-eighth* (!) of the proceeds to his delegate; so that, as Ponsard said, 'he keeps for himself the honors and the money, and leaves all the labor to another.'"

The Executive Committee of the American Public Health Association some time since decided that the annual meeting of that body should not be held, as contemplated, in Washington, about the 1st of March. The time fixed upon is Thursday, May 1, and the place, Cincinnati.

They announce that a circular indicating the order of business will be issued before the time of meeting.

University of Pennsylvania — Auxiliary Faculty of Medicine.—The annual course of lectures will commence on Monday, March 24, 1873. The general introductory will be delivered on that day, at 4½ o'clock P.M., by Professor Samuel B. Howell, M.D.

John J. Reese, M.D.,
Dean of Auxiliary Faculty.

According to the *British Medical Journal*, there are 110 female students attending the present session of the University of Zurich. Of these, 81 are studying medicine, 28 philosophy, and 1 jurisprudence.

Obituary.—John Torrey, M.D., LL.D., a distinguished botanist and chemist, and lately Professor of Botany and Chemistry in Columbia College, New York, died on the 10th instant.

An arrangement has been definitely made by which the female medical students may attend the wards of the Edinburgh Royal Infirmary, on Sundays, with Dr. P. Heron Watson.

Dr. W. Scott Hendrie has been elected visiting physician to the House of Correction.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending March 15, 1873, were 337; 182 adults, and 155 minors. 9 were of bodies brought from the country; making the mortality of the city 328. Among the assigned causes of death were:

Consumption of the Lungs	52
Other Diseases of the Respiratory Organs	55
Diseases of the Circulatory Apparatus	23
Diseases of the Brain and Nervous System	71
Diseases of the Digestive Apparatus	23
Zymotic Diseases (10 from Scarlet Fever)	19
Typhoid Fever	5
Casualties	7
Cancer	4
Diseases of the Urinary Organs	5
Pyæmia	1
Intemperance	1
Suicide	2
Debility (including "Inanition" and "Marasmus")	36
Still-born	16
Old Age	10

(The interments reported for the week ending March 16, 1872, were 444.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

		THERMOMETER.		BAROMETER.
		Max.	Min.	(2 P.M.)
Mar.	9	51.0°	40.0°	29.78 in.
"	10	41.5	34.0	30.17 in.
"	11	48.0	39.5	29.92 in. (Rain and Hail.)
"	12	42.5	39.0	30.15 in.
"	13	42.5	31.0	30.36 in.
"	14	47.5	32.5	30.51 in.
"	15	62.0	38.5	30.12 in.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM MARCH 11, 1873, TO MARCH 17, 1873, INCLUSIVE.

Kimball, J. C., Assistant-Surgeon.—Relieved from duty in the Department of the Gulf, and to report to the Commanding General, Department of Dakota, for assignment to duty. S. O. 52, c. s., A. G. O.

Delany, Alfred, Assistant-Surgeon.—Leave of absence extended two months. S. O. 51, A. G. O., March 11, 1873.

Ewen, C., Assistant-Surgeon.—To report to the Commanding Officer, Department of the Gulf, for assignment to duty. S. O. 52, A. G. O., March 12, 1873.

BOOKS AND PAMPHLETS RECEIVED.

Diseases of the Urinary Organs; including Stricture of the Urethra, Affections of the Prostate, and Stone in the Bladder. By John W. S. Gouley, M.D., etc., etc. With one hundred and three Wood Engravings. 8vo, pp. 368. New York, William Wood & Co., 1873.

The Science and Art of Surgery: being a Treatise on Surgical Injuries, Diseases, and Operations. By John Eric Erichsen, Senior Surgeon to University College Hospital, etc., etc. A New Edition, Enlarged and carefully Revised by the Author. Illustrated by upwards of seven hundred Engravings on Wood. 2 vols. 8vo, pp. 781, 918. Philadelphia, Henry C. Lea, 1873.

Lessons in Elementary Anatomy. By St. George Mivart, F.R.S., etc. 18mo, pp. 535. London, MacMillan & Co., 1873.

Manual of Chemical Analysis as applied to the Examination of Medicinal Chemicals. A Guide for the Determination of their Identity and Quality, and for the Detection of Impurities and Adulterations; for the use of Pharmaceutists, Physicians, Druggists, and Manufacturing Chemists, and of Pharmaceutical and Medical Students. By Frederick Hoffmann, Ph.D. 8vo, pp. 393. New York, D. Appleton & Co., 1873.

The Treatment of Whooping-Cough with Quinine. By B. F. Dawson, M.D., etc. (Reprint from the *Am. Jour. of Obstetrics and Diseases of Women and Children*, for February, 1873). 8vo, pp. 14. New York, William Wood & Co., 1873.

SATURDAY, MARCH 29, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

LECTURE V.

(Continued from page 387.)

THE mucous membrane of the larynx and pharynx is often observed, in cases of chronic laryngitis accompanying phthisis, to have a decidedly anæmic appearance. It is also frequently seen in a swollen condition, with here and there irregular elevations of a red color,—patches that have been denuded of their epithelial covering. These appearances are generally seen upon the capituli Santorinii at the points where they press together during phonation and deglutition; but the locality almost invariably and even characteristically affected is the inter-arytænoidal fold, which is usually red, often with irregular projections in its laryngeal face that assume the appearance of small warts or vegetations during the progress of the disease. This locality—the laryngeal face of the meso-arytænoidal fold—is, when the seat of disease, almost constantly covered by a layer of mucus or pus; and occasionally, when wiped clean with a sponge, discloses an irregular ulceration of the membrane, whose œdematous, notched margins constitute the vegetations already alluded to.

The vocal cords are often intensely congested, so that they are as deep in color as the general laryngeal mucous membrane, and, should the latter be at all anæmic, even of a deeper red. Sometimes they are overlaid with enlarged vessels, and sometimes studded with points of ecchymosis. Occasionally similar distinct evidences of extravasation of blood will be found upon the lateral walls of the larynx; sometimes along the anterior wall of the trachea, even to its bifurcation.

In the more advanced stages of the affection, the mucous membrane undergoes erosion, and ulcers are formed, varying in shape and position. Sometimes the ulceration is confined to the posterior laryngeal wall, to one or both ventricular bands, to one or both ary-epiglottic folds, or to some other special structure; but, as a rule, the ulcers are apt to be produced at several localities, either simultaneously or in more or less rapid succession. The vocal cords also, sooner or later, undergo ulceration, and then their free margins present an irregularly jagged or toothed outline. The posterior portion of the cord is the site by far the most frequently affected. Sometimes the ventricular band becomes adherent to the vocal cord beneath it, obliterating the ventricle; with this condition, or independently of it, one vocal cord is seen raised higher than its fellow, preventing their proper approximation, and producing persistent dysphonia. The general signs of inflammation in the larynx increase; the epiglottis is invaded, its edges as well as its laryngeal surface becoming indurated or ulcerated. The outer surface of the larynx becomes implicated, the pyramidal sinuses and the valleculæ are next affected, and the swollen structures become more and more irregular and deformed in outline, so that it is extremely difficult to describe or depict the altered appearances of the parts.

Irregular granulations are apt to spring up about the bases of the ulcerations, often forming, according to the lecturer, veritable neoplasms, which show a marked tendency to repullulation, when removed for the relief of dyspnœa, and of tickling sensations that excite irrepressible cough. These vegetations may occur upon any part of the larynx, but are found most frequently upon the inner surface of the inter-arytænoid fold. The ulcerations are often mouths of sinuses leading from the diseased or dead cartilage, and are sometimes covered by fungus-like excrescences, analogous to those observed in the skin in the neighborhood of dead bone.

Ulcerative action, when once set up in the laryngitis of phthisis, is exceedingly difficult to control. It is apt to extend to the posterior laryngeal wall and the pharynx, and there gives rise to such impediments to deglutition that the patient is no longer able to swallow his food, and has to be nourished by the rectum. Necrosis and discharge of the laryngeal cartilages are apt to follow, if the patient survives long enough for the necessary changes to take place.

Phthisis, attended with the laryngeal complications just enumerated, is apt to be chronic in its character, continuing for a number of years; and is generally attended finally with ulceration of the trachea,—ulceration that may lead to perforation into the œsophagus.

The pain in the parts is not usually very great, nor is it severe upon external manipulation of the larynx, except the posterior wall be prominently invaded, when the lateral motion of the larynx will be very painful. In some cases, however, the pain is exceedingly severe, not, apparently, from the amount of ulcerative action going on, but rather from exposure, by the ulceration, of some nervous filaments.

These laryngeal ulcerations may make their appearance before the lung-trouble has progressed sufficiently to render its existence demonstrable by physical exploration; and, on the other hand, many cases of pulmonary tuberculosis proceed to their fatal issue without any involvement of the larynx; but in the vast majority of the cases the larynx becomes involved towards the latter stages of the disease.

Local treatment of the larynx and trachea, by means of inhalations, injections, or insufflations, is generally of benefit to the patient in the laryngitis of phthisis, though often inadequate to cure the disease. Sooner or later there is an involvement of

the cartilages, in the form of a chondritis or a perichondritis, generally resulting from extension of the diseased action previously going on in the soft tissues. This is the "laryngeal phthisis" of the earlier authorities. The arytænoid cartilages are more frequently thus affected than any of the others; and, impairing the movements of the vocal cords, there is necessarily always more or less aphonia present. The cricoid cartilage is not unfrequently secondarily affected from extension of the disease affecting the arytænoids. This condition is recognized, on laryngoscopic examination, by the œdematous swelling around some point of ulceration in the interarytænoid fold, or in the parts beneath the glottis.

Sometimes the disease extends to the anterior perichondrium of the thyroid cartilage, and thence to the subcutaneous tissues, forming an abscess which may give rise to a fistula. Schrötter* narrates a case of laryngeal perichondritis without ulceration, in a tuberculous child ten years of age, which was soon followed by subcutaneous emphysema of the side of the neck, and, at a later date, by pleuritic exudation on the same side of the body.

When the epiglottis becomes the seat of perichondritis, it is converted into a thick fungus-like mass, almost always preventing a satisfactory view into the larynx. Sometimes it is the only cartilage attacked; but more frequently the arytænoid cartilages, or at least those of Santorini, are also diseased.

Perichondritis is attended usually with all the symptoms and changes of chronic laryngeal œdema. The diagnosis of this condition can usually be confirmed by the pain and tenderness produced when external pressure is made upon the larynx. The process of exfoliation of the necrosed cartilage is usually a very painful one, on account of the pressure of the sharp edges of the cartilage upon the inflamed superposed membrane, provoking frequent spasms of cough from the almost constant titillation of the parts, and often producing great pain upon swallowing. At this time it is well to nourish the patient by enemata, containing wine and quinine to sustain the strength, and anodyne enough to keep up a state of somnolency and thus lessen suffering. Ice can be kept in the mouth to allay thirst, which may also be partially allayed by frequent sponging of the entire cutaneous surface; and anodyne inhalations may be employed to soothe the inflamed tissues by their local influence.

If the necrosed cartilage can be recognized in the mirror, its progress towards detachment can sometimes be assisted with the laryngeal forceps. Such violent dyspnœa may result when the exfoliated cartilage becomes impacted in the glottis, that tracheotomy may have to be resorted to without delay. Great improvement in the local and general symptoms follows the discharge of the cartilage. Usually, however, the disease is inevitably and progressively fatal; and, after death, evidences are found of extensive participation in the disease on the part of the rings of the trachea, some of which may have even been detached and expectorated during life.

* Jahresbericht, Wien, 1871, p. 60.

THE CHRONIC LARYNGITIS OF SYPHILIS.

This affection, as seen with the laryngoscope, cannot be distinguished with certainty from other forms of chronic laryngitis. The history of the case, and the evidences of analogous disease in other parts of the body, must be taken into consideration in forming a diagnosis. The general appearances of chronic laryngitis having been mentioned in the preceding portion of the lecture, a few special points only remain to be considered. The ulcerations that accompany tertiary syphilis may attack any and every portion of the larynx, and are usually round in outline, with undermined edges, and covered with grayish-yellow deposit; features which may almost always be regarded as characteristic. The presence of cicatrization marking the presence of former ulcers is almost presumptive evidence of syphilis, inasmuch as ulcerations of the larynx rarely heal during the active progress of tuberculosis or carcinoma. The swelling of the tissues in the neighborhood of these ulcerations is apt to be of firmer consistence, or more indurated, than the swellings observed in tuberculosis, and there is not apt to be so abundant a secretion of mucus or pus as there is in the latter affection.

Syphilitic laryngitis is also usually accompanied, in its later manifestations, with syphilitic inflammation of the hard and soft tissues of the palate and pharynx, often leading to necrosis and discharge of portions of the underlying bony structure. The specific ulceration extends deeply and widely; causing such extensive destruction of the cartilages, and the denudation of such large surfaces, that in the cicatrization of the tissues the calibre of the laryngeal cavity is considerably diminished, often to such an extent as to demand the operation of tracheotomy merely for the relief of the dyspnœa produced by the stenosis. When the ulceration extends into the cartilage, this structure becomes necrosed and detached from its connections, and is apt to be coughed up; but if it be situated beneath the glottis, it may induce paroxysms of suffocation, or actual asphyxia, from its presence as a foreign body. The arytænoid and cricoid cartilages are those which are most apt to produce this complication, though occasionally it is effected by exfoliation of part of the thyroid. The epiglottis is almost invariably involved; frequently it is entirely destroyed, leaving a mere stump to represent the organ. This condition does not prevent deglutition, and sometimes does not even interfere with it.

Syphilitic chondritis, or perichondritis, which follows the specific ulceration of the mucous membrane, produces more or less infiltration in the adjacent sub-mucous tissue, presenting a condition which may be regarded as chronic œdema, and may necessitate tracheotomy. The trachea is also often involved; many of its cartilaginous rings are necrosed and expectorated; extensive ulcers are formed, the cicatrization of which produces constriction or stenosis of the tube, which, when low down, can

rarely be relieved, even by the performance of tracheotomy.

Frequently several ulcers will be seen occupying different parts of the larynx; they are rarely confined to one side, and are often symmetrically arranged upon the two sides; thus presenting a marked contrast to the ulcerations accompanying the laryngitis of phthisis. The sub-mucous infiltrations are sometimes developed into a dense fibrous tissue incapable of undergoing absorption; thus eventuating in permanent deformity and constriction of the larynx.

The vocal cords may become adherent to one another, or may be united by a broad fibrinous membrane stretching between them; dyspnœa and more or less complete dysphonia, or even aphonia, will be induced by this condition. Various laryngoscopic operations have been resorted to, for the relief of this condition, by division of the adhesions, but they have often been attended with failure, on account of the great tendency to re-cicatrization and consequent reproduction of the condition. Under circumstances of this character, it would appear proper to open the larynx externally, by division of the thyroid cartilage, and to excise the whole of the cicatricial tissue.

THE TREATMENT OF CHRONIC LARYNGITIS.

The treatment of chronic laryngitis demands, in addition to the application of local remedies, that the condition of the system be improved by a due attention to diet, clothing, exposure, and a proper maintenance of the functions of the skin and other emunctories. The local remedies may be inhaled in the form of spray, in weak solution, or, better still, may be applied directly to the parts in strong solution, by the laryngeal douche, or by the brush or sponge. When there is an excess of secretion, astringent inhalations are applicable several times during the course of the day. Alum or tannin, five to ten grains; sulphate of zinc or copper, two grains and upwards to the ounce; acetate of lead or carbolic acid in similar proportion; the sesquichlorate of iron, in very weak solution, are the most efficient of the many therapeutical remedies employed as astringents. When the parts are dry, and it is desirable to increase the secretions of the mucous membrane, the most useful applications will be found to be muriate of ammonia, five grains and upwards to the ounce; chloride or iodide of potassium, in similar proportion; or the compound solution of iodine and iodide of potassium, two or three drops to the ounce. To these inhalations small quantities of narcotics, such as the watery extracts of opium, hyoscyamus, etc., may be added if there is severe pain in the parts.

Local treatment of this kind is adequate only to the milder forms of the affection; and more potent remedies should at once be topically applied in cases of long standing or of great severity. Nitrate of silver and sulphate of zinc in ordinary cases of chronic laryngitis, tannin in cases associated with phthisis, and the acid nitrate of mercury in syphilitic cases, are the local remedies that have been found the most beneficial. The strength of the solution of nitrate of silver employed varies from forty grains to the ounce up to one hundred and twenty, and occasionally a saturated solution is employed. The tolerance of the parts, and the amount of reaction manifested, must be the guides as to the strength of the solution that is to be employed. It will be found better to make a decided impression by a severe application, and wait several days for its effects to subside before renewing it, than to torment the inflamed structures by the daily application of mild, and consequently too often inefficient, solutions. Twenty to thirty grains of sulphate of zinc to the ounce is the strength generally employed, and it is best applied by means of the laryngeal douche or syringe; while the sponge or brush should be used in making applications of nitrate of silver.

Local applications can often be advantageously made in the form of powders. Alum, tannin, nitrate of silver, and other remedies, are often used in this way, a little morphia being added when indicated for the relief of pain or cough. Scarification and more active local treatment are demanded in ulcerative laryngitis, especially when attended with a severe inflammatory or œdematous condition of the epiglottis and the upper parts of the larynx. This occurs chiefly in phthisis, sometimes in syphilis, occasionally in simple chronic laryngitis. The local use of sweet oil in this condition will sometimes alleviate the painful deglutition; and Dr. Gibb advises the similar use of a strong solution of bromide of ammonium (in glycerine), as well as its internal administration. Powder of morphia diluted with some innocuous material, as gum arabic, sugar, or lycopodium, when applied to the ulcerations, acts very beneficially. Sugar, when applied as a diluent, sometimes increases the suffering for a time; though it does seem, at times, to exert a good influence upon the ulcerative action. These applications should be repeated several times a day, according to the nature of the effects produced, care being taken that an application be made within an hour of each mealtime, so that advantage can be taken of their soothing effect upon the parts for the introduction of nourishment.

The same local treatment will be found applicable in the chronic laryngitis of phthisis. Although not always by any means curative, yet it is almost always indispensable as a means of relief, in conjunction with the constitutional treatment, which must be mainly hygienic and tonic. Tracheotomy has been recommended for the purpose of securing rest to the inflamed and ulcerated larynx; and such a result has sometimes been obtained. It cannot, however, be curative, directly or indirectly; and should be only resorted to when there is danger from asphyxia resulting from œdema or the impaction of a necrosed cartilage.

The treatment of syphilitic laryngitis in its secondary catarrhal or ulcerative manifestations does not differ from that of ordinary laryngitis. In the tertiary forms of syphilis, however, the disease can

only be arrested by specific treatment, which, in the lecturer's hands, consists usually in the local application of diluted acid nitrate of mercury, and the internal use of iodide of potassium and bichloride of mercury. The constrictions of the laryngeal cavity produced by the cicatrices of large ulcers, and the adhesions between adjoining surfaces, often exist to such a degree as to render tracheotomy and the permanent wearing of a tube necessary.

CLINICAL LECTURE

ON LIGATION OF THE SUBCLAVIAN ARTERY.

OPERATION PERFORMED AT THE JEFFERSON MEDICAL COLLEGE, DECEMBER 21, 1872.

BY F. F. MAURY, M.D.,

One of the Surgeons to the Philadelphia Hospital, and Lecturer on Venereal and Cutaneous Diseases in the Jefferson Medical College.

Reported by FRANK WOODBURY, M.D.

GENTLEMEN,—Through the great kindness of Professor Gross, who has yielded me the remaining moments of his clinical hour, I am enabled briefly to invite your attention to a subject of unusual interest and importance. The case is one of large spontaneous aneurism of the right axillary artery, which by mechanical obstruction to the circulation has produced great œdema of the arm, with severe neuralgic pains, and whose constantly increasing size threatens the patient's life, and demands operative interference. Treatment by compression of the artery has been faithfully tried and exhausted in this case, as I shall presently describe, but without controlling the growth of the aneurism or indeed producing any appreciable effect on its walls: I am, therefore, driven as a *dernier ressort* to ligation of the subclavian artery, this course affording the only hope, although a feeble one, of saving the patient.

While he is taking the anæsthetic, I will make a few remarks on the general subject of ligation of the subclavian artery, and then proceed to give the history of this particular case, and the treatment to which it has been faithfully but ineffectually subjected for the two months just past, during which it has been in my charge at the Philadelphia Hospital.

In order to appreciate the difficulties and dangers attending the ligation of this vessel, it will be necessary briefly to recall to you its anatomy, both in regard to its position and its relations with surrounding parts. It is scarcely necessary to remind you that the subclavian arteries differ in their origin, that of the right side coming from the innominate artery, while the left springs directly from the aorta. From this varied origin the arteries, in their normal arrangement, pass upward and outward to the root of the neck, over the first rib, behind the scalenus anticus muscle, and thence downward and outward to the lower border of the first rjb, where they terminate in the axillary arteries. The subclavian arteries, therefore, are divided surgically into three parts by the scalenus anticus: first, the part internal to the muscle; second, the part which is behind it; and third, the portion external to it. The difference in the origin and course of the right and left vessels is limited to the first portion, the second and third parts being precisely alike.

Operations upon the first portion of the subclavian artery necessarily vary in their conditions, according to whether the ligature is to be applied to that of the right or the left side. The greater depth of the artery on the left side, and its close relationship with the pleura, render its ligation exceedingly difficult, and the immediate proximity of important vessels and nerves enhances the risk of the operation, and renders its ultimate success practically impossible. It has been twice performed, I believe, but in both instances unsuccessfully. In Sir Astley Cooper's case, he accidentally injured the thoracic duct, and lost his patient. The operation was afterwards performed with greater success by Dr. J. K. Rodgers, of New York, whose patient lived until the fifteenth day, when he perished from recurrent hemorrhage from the vertebral artery. Guenther, in his "Operations-lehre," has collated ten cases of ligation of this artery on the tracheal aspect of the scalenus muscle, up to 1869, with the following results:

The operation was performed for aneurism in seven of the cases, in the other three the cause was not given; seven operations were performed on the right side, and in the remaining three the location was not mentioned. A fatal result followed in seven cases, in two the result was not given, and but one case was successful. Five of the cases were men, two were women, and in three the sex was not stated.

The successful case was one performed by Warren in 1849, in which the artery was in an abnormal position; it "did not lie upon the first rib, but 1" from the edge of the trapezius muscle, remote from this parallel."* This case, then, can scarcely be admitted as a precedent in estimating the results of ligation of the subclavian proper in its first portion; nor can the subsequent one of Mr. Liston's, in which he succeeded in saving his patient by tying simultaneously the common carotid and the first portion of the subclavian, for an aneurism above the clavicle. The discouraging nature of the results obtained from this operation renders it of questionable propriety,—one that should not be undertaken except as a last resort when other means have failed.

When a large aneurism forces the clavicle upward, and involves the third portion of the subclavian so as to render impracticable the ligation of this part of the artery, it has been recommended to tie the vessel behind the muscle. In order to reach the second portion it is necessary to divide the scalenus anticus muscle, upon which rests the phrenic nerve, and along whose inner border lies the jugular vein, while the pleura is in close proximity. In addition to these difficulties, the danger is enhanced by the origin of its larger branches, which arise immediately internal to this point; altogether rendering

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* Guenther, *op. cit.*

the operation upon this portion one to be avoided. Dr. Thomas G. Morton, of this city, ligated the left subclavian between the scaleni muscles; he was afterwards obliged to amputate at the shoulder on account of gangrene of the arm, from which, however, the patient finally made a good recovery.

When the choice is offered to the surgeon, the third portion is always chosen for ligation, on account of its being comparatively superficial, and farthest from the origin of the great branches. There are a number of cases on record in which the artery has been successfully tied in this situation, generally for the treatment of aneurism; operations on the right side giving, on the average, slightly better results than the left. The first recorded ligation of the subclavian artery for axillary aneurism, in this country, was performed at the Philadelphia Hospital by Dr. Gibson, who lost his patient on the fifth day; the first case in which it was successfully performed occurred in the practice of Dr. Post, of New York, in 1817. Afterwards, the late Mr. Syme, of Edinburgh, cut open an axillary aneurism, turned out its contents, and tied both ends of the artery; he was afterwards obliged to amputate at the shoulder, on account of gangrene of the arm, but succeeded in saving his patient. Desault records two cases, both unsuccessful. After the operation, patients generally die of pleuritis, pneumonia, hemorrhage, pericarditis, shock, pyemia, or gangrene. Of twenty-one cases, tabulated by Mr. Poland, of ligation of this vessel in its second or third portion, there were nine recoveries and twelve deaths. In the successful cases, three were subclavian and six subclavio-axillary aneurisms, and in none of them did the size of the tumor exceed that of a hen's egg. The fatal cases were all subclavio-axillary aneurisms, eight of which perished from hemorrhage.* Prof. Gross, in 1841, collated twenty-seven cases of axillary aneurism for which the subclavian artery was tied; seventeen of the operations being followed by recovery. In three of the cases the artery was tied in its first portion, all of which terminated fatally. The operation of ligation of the third division of the artery, although it has given more favorable results than either of its other portions, is still attended by a high rate of mortality, and, when determined upon, the patient should be apprised of the character of the undertaking, and be carefully prepared for it physically. Our patient is fully aware of the nature of the case, but still insists on the operation; by my advice he has settled all his affairs, and has come here prepared either for an unfavorable termination or to stay until he is discharged cured.

This man is fifty-two years of age, and was born in Germany, but is now a resident of Williamsport, in this State, where he has a family. For a number of years he has commanded a canal-boat, and, living in the open air, his health has been always good, with the exception of an occasional attack of rheumatism. About eight years ago, a spontaneous aneurism formed at the lowest portion of the femoral artery. Coming to the Pennsylvania Hospital for treatment, the artery was ligated at about the middle of the thigh, by Dr. Hewson. Secondary hemorrhage followed, but was promptly controlled, and he recovered without subsequent trouble.

About ten months ago, towards the latter part of February, he experienced pain and swelling in the front of his chest and right shoulder, which he considered rheumatic; this was accompanied by neuralgic pains shooting down the arm, especially along the distribution of the ulnar nerve. In August last, a tumor was first noticed in front of the axilla, which brought him to the hospital. I then found a circumscribed tumor under the clavicle, which was evidently aneurismal, and was then about the size of a hen's egg. I decided to defer treatment on account of the hot weather, and told him to return two months later. When he came back to the hospital his general condition was much the same as before, except that he had lost all use of his right arm, which was very œdematous, and painful when moved; the tumor had doubled in size, was forcing up the clavicle, and had extended into the axilla. Being averse to ligation of this vessel, on account of its risk to the patient, I resolved that before resorting to it I would give the virtues of compression a thorough trial; by which I hoped a successful result might be attained with much less danger.

Compression of the axillary artery, in consequence of its being imbedded in soft structures, has not been found either available or effective; but the subclavian is much more accessible; where it passes over the first rib it may easily be controlled even by pressure with the finger, so as to stop pulsation in the tumor and in the radial artery. It then occurred to me that if an apparatus could be constructed so as to compress the artery in this situation for a few hours at a time through a number of days, avoiding on the one hand the brachial plexus of nerves, and on the other the subclavian vein, a temporary stasis of the blood might be established, followed by the internal deposit of fibrin on the walls of the tumor, and gradual obliteration of its cavity, thus curing the aneurism. By this means we would avoid the danger of gangrene of the sac, which would almost certainly follow sudden complete coagulation of the blood in the tumor, and the subsequent suppuration, and probable pyemia. Acting upon this, I devised an apparatus, which Mr. Gemrig made for me, consisting essentially of a steel buckskin-covered bow, passing over the shoulder, containing a small tourniquet to screw down upon the artery; this was fastened front and back to a padded perineal band, and to a broad band of webbing going around the chest, to secure it all in position. The tourniquet was made freely movable in the antero-posterior plane, so that it might not be displaced in the involuntary motions of the body, as in respiration; it could, however, be fixed in position at any inclination by means of a slot and screw.

The details of this case are interesting, as it is the first case recorded in this country, to my knowledge, where systematic compression of this artery

* Quoted from Gross's System of Surgery, fifth edition.

has been resorted to for the cure of axillary aneurism.

Before the apparatus was completed, the artery was compressed upon the first rib by a tourniquet with a handle, which was held in position by an assistant, with the following result:

October 23.—Compression was kept up for five hours, the patient being fully anæsthetized with Squibb's stronger ether during the process. Some difficulty was experienced in commanding the current of blood through the vessel, slight movements being sufficient to throw the compress from the artery. During the operation the aneurism became quite small and firm, retreating into the axillary space, but when the pressure was removed no marked improvement was noticed.

October 31.—The patient was again anæsthetized, and the pressure maintained for five and a quarter hours. The tumor appeared somewhat smaller and did not pulsate so strongly after these two sittings; during which the brachial artery was controlled by the fingers of an assistant, thus combining the advantages of the Hunterian operation and Brasdor's. After both occasions the patient suffered severe pain darting down the arm, coming on in paroxysms, generally early in the evening, for several days. This was controlled by large doses of morphia, and anæsthetics. Tincture of aconite was given in sufficient doses to reduce the pulse.

The apparatus was completed on the 20th of November, and applied in the presence of Prof. Gross and my colleagues at the Philadelphia Hospital. Prof. Gross gave as his opinion that ligation would be the only effective treatment, but acknowledged, with the others present, that the circulation in the tumor and radial artery was perfectly controlled by the apparatus. Dr. H. C. Wood, Jr., after auscultation, pronounced the aorta probably atheromatous. The existence of such a condition of the vessels I had already suspected, from the fact of this being the second spontaneous aneurism, and this disease of the arteries made me regard ligation with still less favor.

A slight alteration being required in the apparatus, compression was not regularly instituted until a week later. The following record of the treatment is kindly furnished by Dr. E. W. Stone, my resident physician; the patient during the compression being in the sitting position, and not under the influence of ether:

November 27.—The improved apparatus was applied, and pressure kept up one hour. Half a grain of morphia was given hypodermically.

November 28.—Pressure applied for three-quarters of an hour.

November 29.—Applied for one hour and five minutes.

November 30.—Pressed for one hour and twenty-five minutes.

December 1.—Pressure taken off after fifty minutes.

December 2.—Pulsations controlled for one hour and fifty-five minutes.

December 3.—Artery compressed for two hours and ten minutes.

December 4.—Apparatus applied for three-quarters of an hour in the afternoon, one hour in the evening.

December 5.—Controlled for two hours and fifteen minutes.

December 6.—Pressure for one hour.

December 7.—Pressure maintained for two hours.

December 9.—Apparatus kept on for three hours and five minutes.

December 10.—Two and three-quarter hours in the morning, three hours in afternoon, one hour in evening.

December 11.—Four hours in morning, one hour and fifteen minutes in afternoon.

December 12.—Compressed for one hour and thirty minutes.

December 14.—Compressed for two hours and thirty minutes.

December 15.—One hour and five minutes.

During these sittings morphia was used hypodermically,—one grain being generally given in two doses. This was usually sufficient to control pain and inconvenience from the pressure of the tourniquet; but when neuralgic pain in the arm set in the pressure always had to be removed, the morphia being of no avail to prevent it. It was found that as the parts over the clavicle became quite tender in a few days, the artery could be much more readily controlled by shifting the pad of the tourniquet inward towards the median line and directing it backward against the transverse processes of the cervical vertebræ. While this pressure was being carried on, much of the œdema in the arm disappeared, and the arm itself became more tolerant of manipulation; the tumor became somewhat more consistent, and did not pulsate so strongly.

Treatment by compression has been faithfully tried in this case without accomplishing the cure of the aneurism, and the pressure finally caused such neuralgia along the nerve-trunks of the arm and hand that we were obliged to desist. The impulse of the tumor has slightly diminished, while its resistance to pressure has increased, showing some thickening of its walls. In connection with compression I have thought of electro-puncture, or the injection of a few drops of the perchloride of iron; but, as they would produce immediate coagulation of the blood and thus subject the patient to the dangers of gangrene of the clot and pyemia, I think that ligation of the subclavian artery would give the patient the better chance for his life. I adopt this course more confidently because it meets the approval of such distinguished gentlemen as Professors Gross and Pancoast, who are present to assist at the operation, and Drs. Packard, Brinton, Pancoast, Allen, and others.

I will not detain you with an account of the details of the operation, but will merely state that I will first make a transverse incision through the skin and platysma myoid, along the upper border of the clavicle. Reflecting back the flaps, the field of operation is before me, with plenty of room for the subsequent steps of the operation. Reaching the artery, a curved aneurism-needle is passed under it, from before backwards, and the artery secured with a silk ligature. The vein was not injured, and the wound is brought partly together, and cold-water dressing applied. The operation itself, thus far, is perfectly successful; the patient will be kept absolutely at rest in the horizontal position, and be supported with a light but nourishing diet. We have given the patient the only chance for his life

in our power, and now can but hope for the best result from our endeavors.

Saturday, January 5, 1873.—Dr. Maury came before the clinical class to announce the unfavorable termination of the case, exhibit the post-mortem results, and relate the progress of the patient after the operation.

December 21, 1872.—Half an hour after the operation, he appeared to be suffering no pain, and the pulse was 78. During the evening he felt well and was very talkative, but had some occasional pain in the tumor. He woke in the night, after sleeping soundly, complaining of intense pain, for which he had a half-grain of morphia, which relieved him, and he fell asleep again.

December 22.—After a good night's sleep, he woke complaining of pain and cramps in the arm, which were controlled by one-third of a grain of morphia. Three hours later there was no pain and no pulsation in the tumor. Pulse 80.

December 23.—Slept well; took one and a twelfth grain of morphia through the day to relieve pain and restlessness. Appetite fair; no fever; skin moist. Pulse 84.

December 24, 25, 26.—Still doing well, and appetite improving. Severe pain at times, controlled by an anodyne. On the evening of the 26th, pulsation in the radial artery was detected. Pulse 88.

December 27 and 28.—Doing well, but suffering, at times, intense pain; he said that otherwise he felt well, and ate with a good appetite.

December 29.—He slept well all night without morphia. He ate a very hearty dinner, and in the afternoon was feverish and thirsty. Pulse 96. He complained of pain in the arm at intervals.

December 30.—He was restless during the night, and rather flighty at times. He complained of a feeling of great oppression in his chest, and the nurse had to raise him up in bed to breathe. He was thirsty and feverish, and, towards morning, sweated profusely. He ate no breakfast nor dinner, and seemed inclined to sleep. In the evening, as his bowels had not been moved since the day of the operation, a dose of castor oil was administered. This produced a large evacuation, besides making him sick at his stomach, and causing vomiting.

December 31.—He had no sleep whatever during the night, on account of pain in the wound and in the arm. He had no appetite for breakfast, and took three-quarters of a grain of morphia through the morning. At 11 A.M. he had a hemorrhage from the wound, losing about three ounces of blood. He was ordered one grain of opium, in pill, every hour, for four hours. Pulse at 2 P.M. was 116. At 2.45 P.M. he had another hemorrhage, and lost, in all, about a pint of blood. He was directed to take, every hour, five drops of tincture of aconite, until three doses were taken. The last and fatal hemorrhage gushed out in full stream, at about 8.25 P.M. This was controlled almost immediately by the fingers of the nurse, but the patient rapidly sank, and died at 11.10 P.M., on the tenth day from the operation.

The post-mortem showed the ligature in good position and just ulcerating through. The aorta and heart were in an advanced stage of fatty degeneration, and plates of calcareous deposit existed in its valves and in the walls of the aorta. The subclavian artery was in part filled with fibrinous coagulum, and partly with a soft clot, evidently more recent, from the innominate to the ligature. The hemorrhage was the cause of the fatal result in this case, and leads us to the impression that without tying, in addition, the common carotid or some of the large branches of the subclavian, the dangers of the ligation of this artery are such as to make the operation, as a rule, unsuccessful; while by simultaneously securing these vessels a probable failure may be transformed into a possible success.

ORIGINAL COMMUNICATIONS.

A CASE OF ACUTE TUBERCULAR MENINGITIS.

BY C. SEYMOUR, M.D.,
Hinsdale, Mass.

TUBERCULAR meningitis in so acute a form as was exhibited in the following case is to me a somewhat rare disease. The case, from its earliest manifestation to its close, occupied only eighteen days. There was no prodromic stage whatever, as is the common event in this disease; and no acceleration of the pulse in the earlier stages. Not a single convulsion occurred, and there was never any paralysis. In these points the case was of especial interest.

George P., æt. 11, a bright, promising boy, with black hair and eyes, and a light thin skin, complained, February 1, of frontal headache, anorexia, and general malaise. Pulse 76. For a week he manifested little alteration, with the exception of extreme peevishness of temper, an increasing disposition to be left entirely undisturbed, and a gradually decreasing pulse until it reached 52, being at the same time very irregular. He vomited once, and this was the only time during his illness. His bowels now remained constipated. Special senses of sight and hearing became morbidly acute. On the 11th he passed into the stage of delirium, which continued two days. This was followed for a day with somnolency, in which his intelligence was easily aroused, but would as easily lapse again into a peaceful slumber. This state was succeeded by the final one of coma, not profound at first, but gradually deepening, the pupils becoming dilated and unlike, and irresponsive to light, the right lid drooping, the breathing growing stertorous, the pulse now going up rapidly to 160 and higher, until death took place on the 18th. The three stages were thus well marked: the cephalalgia, the delirium, and the coma. *The pulse was not rapid at first*, but declined in the second stage, then rapidly increased in frequency in the last stage. Constipation was present, with but a single evacuation of the bowels, and that involuntarily, during the delirium.

Autopsy by Dr. J. F. A. Adams, of Pittsfield.

The meningeal vessels were found highly engorged with blood; tubercular masses in abundance were clustered upon the summit of the brain, imbedded in the pia mater; and at the base of the brain and about the fissures of Sylvius these yellow granulations were abundant, especially in the processes of the pia mater as they dipped down between the convolutions. This membrane itself was thickened, opalescent, and firmly adherent to the cerebral substance. The ventricles contained over three ounces of an amber-colored fluid.

TREATMENT OF HOOPING-COUGH. — Dr. Charles Kelly, in *The Practitioner* for March, 1873, reports some experiments with belladonna in this disease. It was given in full doses, ℥x to ʒss. of the tincture every two, three, or four hours, for four or five days at a time; and the effect seemed to be to lessen the severity and duration of the coughing-spells.

Dr. Berry, of Lancaster, is quoted in the same journal as advocating the use of dilute nitric acid, ℥v to xv, given in simple syrup every three or four hours. He thinks it not only allayed the cough and spasm, but actually cut short the disease.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, MARCH 29, 1873.

EDITORIAL.

THE PARTY OF THE OTHER PART.

READERS of this journal will hardly need to be told of our earnest opposition to the whole business of diploma-selling. But, on the other hand, we are quite as much inclined to blame the buyers or would-be buyers of degrees. We will venture to say that there is not a single one of the many who have nibbled at the bait thrown out by bogus colleges, or bought their worthless wares, who did not know that in so doing he was a party to a fraud.

The makers of counterfeit money and of counterfeit diplomas would be alike innocent if they had no market upon which to throw their products, nor a public to be deceived and swindled by the uttering of them. The "coiner" must have his "shover," and the seller of the degree *in absentiâ* must have his ignorant and unqualified customer, who will trade upon the unsuspecting patients or clients who regard his title as genuine.

A recent number of the *British Medical Journal* contains a letter from one who signs himself "A Victim," and confesses that he paid £42 for two degrees, one of M.D. and one of LL.D. The editor justly declines to pity him. He ought to have known that no such proposition could be made in good faith,—that he could not get a certificate of qualification, worth the paper it was written on, without proper study and examination. It is a good thing to break down the traffic in diplomas by closing the bogus schools which issue them; it would be still better to do it, if possible, by dealing with those who are willing to become their patrons, and who are equally parties to the fraud.

MORBID CURIOSITY.

THERE are few more curious or more unpleasing psychological phenomena than the enjoyment experienced by the great mass of mankind in dwelling on the details of crime and its punishment. No novel has ever had more eager readers than the Newgate Calendar; and perhaps no book, not manifestly immoral in its principles and objects, has ever had a greater influence for evil. It was, we believe, Sir Joshua Reynolds who told one of his art-pupils never to look at a bad picture if he could help it. The tendency to unconscious imitation is too strong in the human mind, to make the study of crime, except for the direct purpose of its prevention, a safe pursuit.

We are led to these remarks by the fact that all over this country the newspapers are full of the revolting details of the crime and punishment of the wretched Foster, in New York. Thousands of young minds are probably this evening (March 21) gloating over the narrative. We do not believe that those who control these potent agencies of good or evil can realize the poisonous character of the matter they help to spread, or their responsibility for the harm so done.

LEADING ARTICLES.

LEGISLATION RESPECTING EXPERT TESTIMONY.

SENATOR WALLACE has introduced a bill into the Senate of this State for the purpose of providing reliable expert testimony in criminal trials where the defence is insanity. By this bill, parties wishing to avail themselves of this defence are obliged to give notice beforehand to the court, which then appoints a commission composed of two physicians and one lawyer, who are to make thorough inquisition of the case. Their conclusions respecting the mental condition of the party, unaccompanied by note or comment, are to be transmitted to the court, and given to the court and jury as "persuasive evidence" in the subsequent trial, in which, however, the prisoner is not debarred from calling such other expert witnesses as he chooses.

It passes our comprehension to see what would be

gained by this proceeding, except to substitute two trials for one, with double cost and trouble. None of the familiar objections against expert testimony as received at present would be obviated; because, if we rightly understand the bill, the jury trial is to suffer no change from the ordinary mode of procedure. The prisoner may call any number of witnesses, skilled or unskilled, competent or incompetent, paid or unpaid for their opinion, to prove insanity. Neither would anything be *settled* by the commission. They are obliged to testify at the trial and give reasons for their opinion, precisely as if it had not been already used as "persuasive evidence;" they may be badgered by counsel bent on making the worse appear the better reason, and forced to contradict themselves by an artful juggle of hypothetical cases or some paltry shuffling of ordinary facts. The only conceivable benefit to be obtained from this commission would be that of getting two expert witnesses free from the bias produced by being employed and paid by the prisoner, the bias on the other side remaining as strong as ever. We are not disposed to undervalue this benefit, but it would be so far outweighed by other considerations as to be, in practice, of comparatively little account. What is wanted above all things else is real skill; and that is no more likely to be furnished by the court than by the parties in the case.

Then, too, it is to be considered that the members of the commission may not agree in their conclusions. One may find the prisoner quite crazy and devoid of responsibility; another may regard him as only partially insane, and more or less responsible; while the third may believe that the apparent insanity is nothing more than a form of depravity. By what contrivance of examination-in-chief and cross-examination on the trial, these several opinions are to be attacked and defended, is not very obvious. But it is very clear that such discrepancy can be scarcely less damaging to the cause of justice, than those discrepancies which are so much complained of now.

The manner in which the commission is to be compensated for their services would greatly hinder the successful working of even a better provision than this. The court is directed to fix the compensation according to its own discretion, for no rate is prescribed. It needs little worldly wisdom to predict as a consequence of such an arrangement any amount of disappointment and dissatisfaction. The value of men's services, generally speaking, is not always estimated alike by employer and employed; and in the case of scientific service like this, the diversity of estimate may be of the widest kind. If the court were guided by the measure of its own salaries, we are inclined to think it would seldom have the opportunity to employ men fully competent for the purpose, and whose conclusions would be satisfactory to the public. To prevent any uncertainty on this point, we must suppose a bargain to be made beforehand, and that also supposes a scene of dickering between the court and the expert, not calculated to exalt our notions of judicial dignity. The tendency of this provision, obviously, is to put into such commissions persons of inferior attainments, while the prisoner and his friends might spare no expense in securing the services of experts of the highest reputation in their profession. The State need not expect to obtain men for this purpose, of acknowledged competence, unless it is willing to pay them somewhat according to their own notions of what they are worth.

We regret to be obliged to throw cold water on any well-meaning attempt, as we sincerely believe Senator Wallace's is, to remove the impediments to a satisfactory administration of justice in the class of cases in question, but we strongly doubt if true reform lies in that direction. With no disposition to underrate the real delinquencies of experts, we insist that much that passes for such is but the unavoidable and legitimate result of scientific inquiry. When scientific men shall be conducted to their conclusions by some sort of miraculous endowment, they will undoubtedly all agree, and their utterances will be infallible; but until then we shall doubt the wisdom, if not the practicability, of any mode of procedure that necessarily prevents disagreement. "'Tis true, and pity 'tis 'tis true," that men not unfrequently thrust themselves as experts upon the witness-stand who have no business there; but if our juries were constituted as they should be, little harm would come from their testimony. It is because of the well-known stupidity of juries and their lack of any sense of responsibility, that such so-called experts have presumed to inflict their presence upon our courts of justice. When we shall have ceased excusing from jury-duty almost every man tolerably competent to perform it, and putting into the jury-box men hardly knowing their right hand from their left, we shall have little occasion to complain of the delinquency of expert witnesses. If Senator Wallace and others of like intent would devise some legislation with the view of improving the character of our juries, they would do more towards relieving us of objectionable experts than they can by the most ingeniously contrived commissions.

CORRESPONDENCE.

LONDON LETTER.

[*From Our Own Correspondent.*]

The Case of the Emperor Napoleon—Clinical Lecture by Sir Henry Thompson—Hunterian Oration by Mr. Hancock—The Societies—Centenary of the Medical Society of London—The New Obstetric Journal—The London Anniversary of the British Medical Association.

LONDON, March 3, 1873.

WE have not ceased to discuss the case of Napoleon III. The somewhat provoking delay in the publication of the promised detailed account of the case by the Emperor's private attendants has indeed rather excited than dulled our interest in the subject. This delay is due, it is stated, to the absence of M. Conneau from London; but it is not altogether advantageous, as it leads to continued public criticisms without sufficient data. The graver monthly journals, such as the *Edinburgh Medical Journal* and *The Practitioner*, in their numbers just issued, discuss the case, and both condemn the treatment; but the articles bear traces of an injudicious reliance upon mere hearsay, and, indeed, contain assumptions which I have reason to know to be contrary to the fact. Both assume that the operation and treatment were guided by a conviction that the kidneys were sound, and it is roundly intimated that a knowledge of the earlier history of the case and of the consultation of MM. Nélaton, See, and Ricord was withheld from the London doctors concerned. This was not so.

In a very interesting clinical lecture delivered by Sir Henry Thompson on Saturday last at University College Hospital, he boldly discussed the subject of the influence of renal disease on the choice of operation for vesical calculus. He started by pointing out that the grounds of choice now are very different from what they were twenty years ago, and that the data most generally relied on by those who have recently written upon the subject belong rather to a by-gone period than to the present day. The statistics of mortality from lithotomy have not varied perceptibly during the last thirty years. It is quite otherwise with lithotrity. Its achievements are altogether modern, and the mortality from lithotrity in the hands of practised adepts bears no comparison with that of earlier days. An amount of kidney-disease which forbids the idea of lithotomy does not, in Sir Henry Thompson's opinion, necessarily contra-indicate lithotrity. He instanced seven recent cases in which, notwithstanding evidence of advanced disease of the kidneys of a formidable kind, he had relieved patients in the wards from the torments of calculi in the bladder. He ridiculed the idea of ascertaining the extent to which the ureters are dilated by plessimetry, as M. Piorry has suggested, and asked whether that physician would undertake by plessimetry to map out the lumbar plexus in the healthy body,—the easier achievement of the two.

The lecture was bold and honest, and, although it will no doubt excite criticism, its author will not shrink from bringing his statements to the test of clinical experience, on which, indeed, they are founded.

There is no use in shirking the fact that lithotrity in the hands of a highly-practised and thoroughly-skilled operator is a very different thing from the same proceeding in the hands of a good surgeon not thoroughly practised. Every surgeon of ordinary knowledge and capacity can lithotomize, and do it as well as another. A very small difference in skill, tact, and experience in lithotrity makes an immense difference in the results. It is painful and surprising to see how skilful surgeons "bungle" with the lithotrite, after having seen Thompson handle the instrument.

An unpleasant impression has been produced here by an oration delivered by Mr. Hancock, as Hunterian orator, at the Royal College of Surgeons. The oration was a studied denunciation of preliminary examinations in arts. No doubt occasional hardships occur in the rejection of youths who possess fair abilities but yet have failed to master an adequate knowledge of arts and letters. But there are very few indeed, however, who do not admit the necessity of a preliminary test which shall prove that aspirants for medical diplomas have the ordinary education of English gentlemen; and besides one or two of the elder school of unlettered practitioners, to which Mr. Hancock belongs, he finds no sympathizers. Mr. Hancock has, however, a *fidus Achates* in one of the subordinate officials of the college, who, to the great scandal of the profession, procured by means at his disposal the admission of a very full report of this oration in the columns of the *Times*, and so gave to an address which was really an anachronism something of a representative character. The medical press has been unanimous in its condemnation of the address, and Mr. Hancock's colleagues are by no means well pleased.

The Societies are in active operation. A very interesting case was brought lately before the Royal Medical and Chirurgical Society, in which a needle which had lodged in the heart for seven days was successfully cut down upon and removed by Mr. Callender, at St. Bartholomew's Hospital. A discussion has been opened at the Clinical Society of London on the influence of excessive exertion—such as that in which the amateur athletes of our universities and public schools indulge—upon the heart. Some very strong evidence of its injurious effects was adduced, and the whole subject is likely to be fully discussed. I will presently summarize the conclusions.

The Medical Society of London, the oldest, but of late years the least esteemed, of our medical societies, is making an effort to raise itself in the scale of scientific esteem, and not without success. It has the advantage of an ancient foundation and of endowed funds: nevertheless, until lately it has been the resort chiefly of third-rate talents and of the demi-monde of medical science. It has been a good deal improved by the efforts of such men as Dr. Andrew Clark, Dr. Richardson, and Dr. Habershon, and it is about to celebrate its

centenary by going into new and handsome premises, establishing printed proceedings, and other measures which indicate revived prosperity. It is never likely, however, to rise much above the fifth or sixth place among the London societies.

A new monthly journal, *The Obstetric Journal*, is announced to appear on the 1st of April. It will be edited by Dr. Aveling and sub-edited by Dr. Wiltshire,—the one a provincial practitioner of ability and energy, who has recently come to London, and the other a very energetic and hard-working young man, who is aiming with earnestness at a high place in the ranks of obstetric medicine. The prospects of this journal are considered very doubtful; but it is tolerably sure to deserve success, if it cannot command it. All the journals give a great deal of obstetric matter: three societies—the London, Edinburgh, and Obstetrical Societies—publish volumes of transactions; the *British and Foreign Medico-Chirurgical Review* and the London *Medical Record* give full obstetrical summaries: so that it is not clear whence the body of subscribers likely to support a new special journal of the kind are to come. On the other hand, the subject is one of vast interest to the great mass of practitioners, and there is little doubt that the new journal will contain good and instructive matter.

The British Medical Association will hold its annual meeting this year in London; and the occasion is likely to be one of great interest. Its former London meeting was held ten years ago, when the Association numbered less than one-half of its present roll—upwards of five thousand members—and enjoyed far less prestige. Sir William Fergusson will preside, and probably not fewer than eight hundred or nine hundred members will attend. A very influential Reception Committtee has just been formed, and money is flowing in to provide a handsome reception in return for the large liberality which the great provincial and university towns have shown of late years at the successive annual meetings in Dublin, Cambridge, Oxford, Leeds, and elsewhere. A great number of distinguished foreigners will attend, and I hope that among them we shall see a large proportion of your countrymen. They are always sure to be most cordially welcomed if they take proper means to make themselves known. The meetings will be held on the 6th, 7th, and 8th of August.

THE "BIDDING" AT WHEELING, W. VA.

To the Editor of the Philadelphia Medical Times:

DEAR SIR,—I have read with much regret your editorial remarks in the *Times* of Saturday the 8th instant concerning "a remarkable transaction" published in a recent number of the *Wheeling Daily Intelligencer*, which, you say, was handed you "by a friend."

If I were not sensible of the value of your good opinion, and sufficiently mindful also of the influence of the *Times* with the very best men of the profession in all parts of the country, I should not trouble you with this note in explanation of the "Curious Inconsistency" you have recorded.

I cannot help believing that newspaper was sent from Wheeling to your Philadelphia friend for the unjust and unmanly purpose of leading him, if possible, and others into a participation of the prejudice of the *sender* against one of "the two gentlemen" to whom you have referred as having offered their professional service to Ohio County at poor pay, "in the face of their own remonstrance against the very proposal to them so to underbid one another."

Fearing some such discourteous use of the paper containing the proceedings of the County Commissioners, I sent to the editors of the *Intelligencer* the following communication, which, if an excuse to misrepresent me had not been sought, should have followed quickly the previous day's paper to your friend:

"Wheeling, February 4, 1873.

"To the Editors of the Intelligencer.

"In your report of the proceedings of the County Commissioners in session yesterday, I am so much misrepresented that I cannot suffer the publication to pass without calling your attention to the awkward and erroneous position in which you have accidentally placed me.

"1. I sent in *no bid* to 'render medical and surgical attendance to the poor, including service at the jail to county prisoners, the examination of lunatics, and conduct *post-mortem* examinations,' in answer to an advertisement for proposals for such service, bearing date the 15th of January.

"2. I was *not* a candidate for the new office created and filled yesterday to supply the above-named public service at the pay of $500 per annum.

"For more than two years I have been serving the poor within the city limits by special contract with the late Board of Supervisors. That contract expired January 1, and I sent to the Clerk of the Board the following note, several days prior to the meeting of the Commissioners when the advertisement for proposals, etc., was authorized to be published:

"'Wheeling, January 6, 1873.

"'*Charles B. Cecil, Clerk County Commissioners:*

"'Dear Sir,—There being no provision since January 1 (when my contract expired) for medical service to the poor within the city limits, I have not discontinued my attentions to several needy patients who are still on hand. In other words, I shall continue my services to the sick poor until otherwise instructed by the proper authorities. Should the new Board of Commissioners desire to renew my former contract, I am willing to accept its terms for another year,—that is, $350 for service to the poor within the city limits. If not for the year, I am sure they will not object to *paying me* for service rendered until my successor is appointed.'

"Very respectfully,

"James E. Reeves."

My contract was to supply simply medical and surgical attendance to the poor, "on the order of an overseer of the poor or member of the Board of Supervisors." This contract I proposed to renew for the reasons stated; and my proposition antedates the advertisement for proposals for the joint service to the poor, to the jail, etc., etc.; and hence it was in no wise a *bid;* nor did this letter authorize the use of my name as a candidate when the new office was filled.

"Why the Board advertised for bids" can be easily answered. At the January meeting of the Commissioners it was discovered that my contract had expired; but, for some reason, my letter as above, addressed to the clerk, was not read. At this point in their proceedings a proposition was received from Dr. Bates, Jr., to continue the service I had been performing at the same rate of pay, $350 per annum; but it was rejected, and a resolution carried to advertise for bids not only for "attendance on the poor," but for the additional service of "examinations of lunatics, and post-mortem examinations in case of medico-legal investigations, to be awarded to the lowest bidder by the year."

The next day after these proceedings, I met two of the Commissioners, and assured them that no physician in good standing would *bid* for the service proposed; that if the action of the Board was adhered to, the result would be, the duties required would surely fall into *irregular* and incompetent hands.

After this conversation with those gentlemen, it was agreed by the committee having the matter in charge to propose an ordinance prescribing all the required duties, and have the same ready to submit at the next meeting of the Board. The salary was fixed at $500, and the ordinance, as proposed, adopted. The next thing in order was the election of the officer; and this is the way in which "one of these bidders who offered his services for $350 was actually elected to serve at a salary of $500."

In justice to the regular profession of Wheeling, it should be told that no "*bid*" from among them was made in answer to the advertisement for proposals to perform the above-described service; and that, in view of this result, the Board of Commissioners of Ohio County were induced to adopt another plan than that of selling out medical practice to the lowest bidder.

Trusting that by these lines I shall be able to disabuse your mind of the error which has been imposed upon you, I am, dear sir,

Your friend truly,

JAMES E. REEVES.

WHEELING, WEST VIRGINIA, March 10, 1873.

DR. LETHEBY ON FOOD IN AMERICA.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

EVERY one knows the high authority of Dr. Letheby; assured not only by his ability and learning, but also by his position and experience as, for a number of years, Medical Officer of Health to the City of London.

Reading with much interest the second edition of his lectures on "Food," a book especially rich in figures and facts upon that subject, I was struck with some statements in regard to this country, of which it would not be well for us to be ignorant, *if they be true*. The following are literal extracts:

"The sallow, weazen look of the natives of the Northern States of America is thought to be due to the indigestible preparations of Indian corn, called *mush*, *hominy*, or *johnny*, which constitute the chief portion of their daily meals." (P. 17.)

"In America the elaborateness of the *menu* for breakfast, dinner, and supper is very striking,—the breakfast in the large hotels being from eight to eleven, luncheon from one to three, dinner from six to eight, tea from eight to nine, and supper from ten to twelve; making ten hours a day for the disposal of most elaborate meals." (P. 135.)

"Hares which have fed upon the *Rhododendron chrysanthemum* are frequently unwholesome; the same is the case with pheasants in Pennsylvania and Philadelphia, which feed during the winter and spring on the buds of the laurel (*Kalmia latifolia*); and I have known many instances of serious mischief from prairie-birds, which are largely imported into this country from America, and I attribute it to the food made use of by the bird. In certain districts of North America, especially on the Alleghany Mountains, *the flesh of all the cattle is poisonous, and so also is the milk they yield, and the cheese which is made from it.*" (P. 221.) (The italics are ours.)

On the first of these assertions our deference to Dr. Letheby's authority cannot carry us further than to ask (for information?) three questions: "Are the natives of our Northern States, as a rule, sallow and weazen in appearance?" "If so, is this due to preparations of Indian meal?" and, lastly, "Do *mush, hominy*, or *johnny* constitute the chief portion of their daily meals?" The answers may be left to the many readers of the *Times*, as well as of Dr. Letheby's book, who live in the Northern States. Dr. Letheby's informants must have penetrated farther into the wilds of "Massachusetts and Boston" (to paraphrase one of our author's expressions) than most of us have done, to discover tribes of natives of whom either of these things is true.

About the next matter—the elaborate *menu* of all meals in America, as represented in our "large hotels"—a diffident suggestion may be made, to the effect that an average "native" scarcely ever devotes quite so much as ten hours daily to the "disposal" of his (mush and johnny?) meals. We can perhaps imagine an English gentleman, travelling at leisure, doing so. In such a case he would have to be much absorbed in his *menu* not to see that those who come in through the ten hours accomplish their meals in as short a time as the inhabitants of most other countries.

But as to the kalmia-poisoned pheasants of "Pennsylvania and Philadelphia" (adjacent States?): are our sportsmen familiar with them? Dr. Letheby, no doubt, has read Longfellow's poem of Evangeline; and there

it is told that, in our town, "the streets still re-echo the names of the trees of the forests." But it would probably be news at Augustin's or Guy's that the laurel was causing mortality at any season among their customers.

Most remarkable and important, however, is the last of Dr. Letheby's American "facts." Those cattle of the Alleghanies: are they wild or tame? Has Hayden, Leidy, or Cope yet explored those regions? We want to know. Some of us have occasionally crossed those mountains, and have even spent summer days or weeks among them; yet we have not met with the poisonous beef, veal, milk, or cheese. Are we unaccountably ignorant? Or is it just possible that Dr. Letheby may be mistaken, and even *careless*, about his *facts?*

Respectfully,
HENRY HARTSHORNE.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

SEMI-MONTHLY MEETING, March 12, 1873.

Reported by JAMES S. BAILEY, M.D.

DR. ALBERT VAN DERVEER, PRESIDENT, in the chair.

DR. SAMUEL H. FREEMAN offered some remarks on *Laryngitis*. "This," he said, "is one of the most distressing diseases incident to humanity; but happily it is of rare occurrence, since in the greater proportion of cases in which it has occurred it has proved fatal.

"Of course slight inflammation or congestion of the surface of the mucous membrane of the larynx is not uncommon as the result of colds, induced by exposure to sudden and extreme changes of temperature, and is, in general, neither dangerous nor unmanageable; but when the inflammation affects not only the mucous membrane, but also involves the sub-mucous tissue, causing engorgement and serous effusion, or pseudo-membranous deposits, the dyspnœa and dysphagia become fearfully distressing, and the patient frequently sinks from asphyxia, unless relieved by active medication, or that *dernier ressort*, tracheotomy.

"This disease occurs almost exclusively during the early period of adult life, and usually in persons of robust habit. The treatment must be prompt and effective; and I know of no disease in which the utter impotency of homœopathic treatment is so clearly illustrated as in acute laryngitis and that class of inflammatory diseases. Cases are recorded which have terminated fatally in seven hours from the attack.

"In the treatment of a case of this distressing disease which occurred recently in my own practice, after the application of leeches and fomentations, together with the administration of slightly nauseating doses of antimony and lobelia, I made free application of the cantharidal collodion over the region of the larynx; and this seemed to prepare the way for the greatest relief which the patient experienced from the careful and persistent inhalation of the steam of boiling water.

"It is an interesting fact that the ciliated epithelium which lines the larynx, and whose functions are secretive and protective, subserves also the function of aeration, and is aided in this by the cilia preserving a proper state of moisture over every part of the membrane. These cilia, which are among the most minute objects known to the histologist, are in incessant motion; and this motion will continue many hours after death (seventy-eight hours, according to Virchow), if the cells are kept moist.

Dr. AMOS FOWLER said that he approved of the use of steam; and his plan was to fill the room with it, and in a few hours, in cases of stridulous breathing in croup, he had noticed a marked advantage from its use.

Dr. F. C. CURTIS then related the following case: A child, æt. 5 years, inhaled steam from the spout of a tea-kettle; she cried for a little while, but was readily pacified with candy, and for two or three hours did not suffer much; then the breathing became difficult and the voice hoarse.

When seen, about five hours after the accident, the face was suffused, the breathing was labored and irregular, and the voice was wanting; the pulse was rapid, and the skin hot.

By passing the finger into the throat, two tumors of the size of the end of the thumb were felt at the base of the epiglottis, showing œdema of the glottis; probably it was the same condition extending into the larynx and trachea, which produced aphonia.

On this account an operation, scarifying or tracheotomy, did not seem to offer hope of success, especially considering her low condition. Hot applications were bound around the throat and chest, and the room filled with vapor by kettles of boiling water on the stove; but the next morning she was moribund, and died twenty-four hours after the injury.

Dr. CURTIS presented in this connection a hard rubber tube with a proper curve for passing it into the trachea; this was used with success in the hands of Prof. Wiederhofer at the Children's Hospital in Vienna, in cases of true croup. After being passed through the rima glottidis, the breathing became more easy. By passing a feather through the tube, considerable false membrane was entangled and removed.

Dr. AMOS FOWLER then reported a case of *gangrene of the leg*. Mr. P., æt. 77, was naturally strong and robust, had been in the habit of using alcoholics, tobacco, and opium for twenty-five years. For the last ten years used opium and tobacco to excess.

December 20, 1872, paralysis occurred on the left side. Nothing unusual appeared in his case, excepting a great torpor of the bowels, until January, 1873, when the left foot began to swell, increasing until the last of the month, when gangrene commenced in the leg, a little above the foot. This spread slowly, involving the whole foot and the lower part of the leg. His appetite remained good, and his pulse was seventy, until the middle of February. After this his mind became dull; in a few days more he was seized with convulsions, which continued at short intervals until his death, February 20. He called for more opium as long as he could speak.

Prof. JAMES MCNAUGHTON reported a case occurring in his practice in a person æt. 40, naturally strong and of full habit, who had been subject to slight attacks of rheumatism. He first suffered from pain in one arm, which was followed by coldness of the member and paralysis, and a line of demarkation was soon established above the elbow. The late Dr. Alden March saw the case with him, and amputation was advised. When cut, the blood flowed like venous blood. The patient recovered, after extensive sloughing.

Dr. MCNAUGHTON remarked that this case illustrated the effect of paralysis upon the circulation, which seemed to be to coagulate the blood. This was the only case of the kind that he had observed in a practice of over fifty years.

This patient was entirely temperate, and of sedentary habits.

Dr. VAN DERVEER presented three specimens of spleens, two of them unusually large, and then gave

the following case: Mrs. B., æt. 36; married six years; had menstruated regularly, but not freely; ceased three months previous to death. Has never had intermittent fever. Had been under treatment at the Woman's Hospital, N.Y., in the fall of 1870, for no specific disease. She never was pregnant; her health had not been good for several years; she was laboring under an impression that she had cancer, and consulted Dr. March regarding a tumor in the breast. The tumor was first discovered in the left side in the summer of 1872. At the time of her death she was being treated by an eclectic in this city, for uterine disease.

Sectio cadaveris.—Nothing of importance found but an enormously enlarged spleen, which weighed nearly four pounds, measured in length 10½ inches, and was 5 inches in width at the broadest extremity and 4 inches at the narrowest. In thickness 3½ to 4 inches. Capsule firmly adherent. On section it covered the knife with fat. There was extensive peritonitis from the left inguinal to the left lumbar region, and the intestines were distended with fluid.

Dr. Bright (On Abdominal Tumors and Intumescence) says, "The spleen is an organ which, both from the obscurity in which its natural functions are involved, and from the situation which it occupies in the body, presents when diseased some difficulties in regard to diagnosis which are not shared by many other organs. Moreover, its healthy condition probably admits of so much variety, and so many changes as to bulk and consistence, that in a pathological point of view it is not always easy to make out the limit at which morbid change or degeneration of structure actually begins."

Dr. Bright speaks of spleens in Guy's Museum, one weighing only thirteen ounces and ten grains, and an apparently healthy one weighing nearly two pounds.

Rokitansky says of enlarged spleens, "A coagulable fibrinous deposit takes place, and the tumor, therefore, in proportion to the amount of coagulation becomes hard, elastic, and indurated; the parenchyma is of the reddish-brown color of fresh muscle, and presents on section a fleshy (sarcomatous) appearance; by degrees the coloring-matter is absorbed; the organ then presents a pale though yellowish or reddish-white appearance, and resembles fibrin that has been washed.

"During the hyperæmia the fibrous trabeculæ also increase in quantity and toughness, so that the tumor becomes more resistant; the fibro-serous capsule is also rendered more opaque, and is thickened; it is invested with a cellular pseudo-membrane, resulting from peritoneal inflammation, and is thus attached to the abdominal parietes."

He also speaks of "*fleshy hardness with enlargement,*" and remarks, "In this state the spleen often attains to a prodigious size, filling up the whole left side of the abdomen. It produces very little constitutional irritation, and chiefly injures by its bulk and its tendency to favor serous effusions. It is astonishing with what rapidity this enormous growth occasionally takes place; but in this respect we are liable to be deceived, for it is attended by so little pain that in many cases the increase has been taking place gradually long before some accidental circumstance leads to its discovery."

Microscopical Appearance of the Large Spleen.—The trabeculæ and Malpighian tufts are enlarged, as well as the blood-vessels; the whole tissue seems very much hypertrophied. No abnormal deposits, infiltration, or pathological conditions are evident excepting hypertrophy.

Dr. J. B. STONEHOUSE presented cases by which the hæmostatic properties of ergot were proved, and remarked, "About one year ago I became interested, from the statements in foreign and American journals, in the alleged hæmostatic properties of ergotin. Procuring some, I determined to test it as far as my practice permitted. The solution used was in the proportion of a half-drachm of ergotin to the drachm of water."

Dr. Stonehouse presented notes of five cases in which its use was successful, and hoped others would give it a trial, and thus lead to a more extensive use, which he believed it to deserve.

OBITUARY.

DR. HUGH L. HODGE, the son of Dr. Hugh and Maria Blanchard Hodge, was born in this city on the 27th of June, 1796. His father studied medicine with Dr. Cadwalader, served in the army, subsequently practised his profession in Philadelphia, where he was a Fellow of the College of Physicians, and died in 1798.

Having graduated with the highest honors at Princeton College, N.J., in 1814, young Hodge studied medicine at the University of Pennsylvania, as a private pupil of Professor Caspar Wistar. He took his degree in 1818, and, as was then a frequent custom, he went to India as surgeon to a merchant-vessel. Returning home, he began the practice of his profession in 1820, and married Miss Margaret Aspinwall, of New York. He became physician to the Southern Dispensary, afterwards to the Philadelphia Dispensary, in 1823 physician to the Almshouse Hospital, and in 1830 Obstetric Physician to the Pennsylvania Hospital. His exertions in the cholera hospitals in 1832 obtained the recognition of a vote of thanks and a silver pitcher from the city.

Dr. Hodge's career as a teacher began in 1821, when he took the private anatomical class of Dr. W. E. Horner, who was in Europe. In 1823 he became Lecturer on Surgery at the Medical Institute. But the Professorship of Obstetrics and Diseases of Women and Children in the University of Pennsylvania, conferred on him in 1835, was the main work of his life. He filled this important post until 1863, with a dignity and faithfulness which many practitioners all over our country will remember, and on his retirement was constituted Emeritus Professor. In 1871 he received the degree of LL.D. from Nassau Hall, Princeton.

A very large family- and consultation-practice flowed in upon Dr. Hodge, strangers coming to the city, especially from the South and West, to obtain the advantages of his advice and treatment. Few physicians have ever possessed the confidence and love of their patients in a larger degree. His great and varied experience he utilized in the invention and improvement of obstetric instruments; the best-known being his forceps, his pessaries of several forms, and a cephalotribe.

Dr. Hodge's principal literary work was his "System of Obstetrics," a large quarto, containing an admirable exposition of the views which he had so ably presented to his classes for twenty-eight years. This book, which appeared in 1863, had been preceded by a smaller one, on the "Diseases Peculiar to Women," in 1860. During the first few years of his professional life he was one of the editors of the *North American Medical and Surgical Journal*, and contributed to it a number of reviews and original articles. Papers by him appeared also in the *American Medical Journal*, and in the *American Journal of the Medical Sciences;* two of the latter, on "Synclitism of the Fœtal Head," excited a good deal of discussion a few years ago. A number of his introductory lectures were also published from time to time: one, on "Criminal Abortion," after being several times reprinted, was lately issued afresh under the title "Fœticide." He would have been a much more prolific writer, but for the pressure of his professional engagements during so many years.

Dr. Hodge was not only a man of singular modesty, purity, and temperance, but of earnest and devoted piety. He was at the same time positive in his opinions and courteous in defending them. His conscientiousness in the performance of duty in every relation of life was one of the most marked features of his character. To the last he was at work: on the very day that his brief final illness began, he saw patients, and was occupied with his amanuensis in the preparation of an article on "Cephalotripsy."

He died of angina pectoris, after only twenty-six hours of suffering, on the 26th day of February, leaving behind him a character of spotless integrity. Five sons survive him, only one of whom, Dr. H. Lenox Hodge, has adopted the same calling.

GLEANINGS FROM OUR EXCHANGES.

The Effects of Quinine upon the Uterus (Von Josch: *Wiener Med. Presse*, No. 36, 1872).—The important consideration appears to be whether we dare assume that quinine acts upon the fibres of the sympathetic; but we have to consider this question as unsatisfactorily answered at present. The author, who appears to have had considerable experience both in clinics and private practice, says that most physicians must have noticed that in the early stages of gravidity quinine possesses the power of producing slight contractions in the uterus. It possesses the same power in the post-partum period. Its use, however, is at least "superfluous" in the latter stage, if considered as a means of producing efficient contractions of the womb. In order to admit this, we have but to consider the causes which produce retention of the placenta. The most frequent are:

1. Atony of the uterus.

2. Irregularity of the uterine contractions, contractions operating in the wrong direction (Nägele, Grenser), tonic spasms (*strictura uteri spastica*), and clonic spasms (Hegar); or

3. Abnormally firm adhesions.

The rarer causes are—(*a.*) Abnormal position of the placenta,—very deep or in the uterine end of the Fallopian tube.

(*b.*) Narrowness of the parts concerned in parturition, especially in the early months of pregnancy, or secondary narrowness in consequence of impaction of the rectum or fulness of the bladder.

(*c.*) Abnormally large placenta (?), *Placenta succenturiata*, and deformities of the placenta.

(*d.*) Considerable deflexion of the uterine axis from the central line of the pelvic canal.

Simple presence of the loose placenta in the vagina cannot be considered retention of the *after-birth*, because in such a case simple traction upon the umbilical cord will bring away the placenta.

If the physician desires to use a drug to produce contraction of the uterus, he could desire such a remedy only in cases of atony of the uterus; for in the second condition already noted any means productive of contractions could in no way relieve the already faulty direction of the contraction. And in the third instance no remedy is of avail. These cases of firmly adherent placenta are so rare as to be denominated "myths" ("*Gespenste*," Credé). In cases of atony of the uterus where post-partum hemorrhage is threatened, the author thinks that "Credé's method" is far superior to any drug.

He says that since this method has been generally taught and practised in *normal labor*, atonic conditions of the uterus are much less frequent than heretofore. Since the method is simple, every obstetrician should try it before resorting to one more complicated. The conclusions concerning the foregoing questions are:

1. Empirically it is very probable that contractions of the uterus may be produced in the *post-partum* period by the administration of a large dose of quinia, although we do not know the physiological connection.

2. Its use, like that of the much-vaunted ergot, in the post-partum period, is superfluous, and is to be rejected for more exact and fitting treatment.

Treatment of Aneurisms.—Prof. Billroth, in the sixth edition of his work on the General Principles of Surgery, 1872, describes the following methods: 1. Compression of the tumor itself. 2. Compression of the trunk above the tumor; and of the different modes of applying the pressure he enumerates that with the finger, that by forcible flexion, and that by various compressors, tourniquets, etc. 3. Ligature of the artery by Anel's, Hunter's, and Wardrop's methods. 4. Injections of various kinds, as of perchloride of iron and of solution of ergotin. 5. Electro-puncture. 6. Ablation of the entire swelling (method of Antyllus). In commenting upon these different methods, Prof. Billroth remarks that sometimes one and sometimes another is to be preferred. As a general rule, however, in view of the very numerous and favorable cases that have been reported from the employment of compression, he thinks this should be first tried, and not too early given up. When, as is usual in traumatic cases, the tumor is widely diffused, Antyllus's method, the complete ablation of the whole mass, is to be preferred. It is quite practicable with good assistants. If this plan be not adopted, then recourse must be had to Anel's or Hunter's method. Ligation of the larger vascular trunks would always be performed as the best and simplest means for the cure of aneurism, were it not that secondary hemorrhage takes place so frequently from the part ligatured. Professor Billroth suggests that some plan may even yet be discovered which possesses the advantages without the disadvantages of the ligature. Injection with liq. ferri is least available in cases of spontaneous and traumatic aneurism. In varicose aneurism and aneurismal varix, the ligation of the artery above and below the opening is the most certain means of cure.

Treatment of Psoriasis (*La France Médicale*, January 15, 1873).—Psoriasis is not in itself a serious disease, says M. A. de Montméja, but it is obstinate, and those who have once been affected by it are very liable to relapses. It is often hereditary, manifesting itself only when the adult period is reached, after which it may be either intermittent or inveterate. In the present state of our therapeutical knowledge, we must not imagine that we can effect a radical cure of psoriasis; we may clear the skin, or hasten the evolution of an attack, but it is impossible to prevent relapses. The treatment is divisible into that by local and general means. The general treatment consists in the administration of mild and frequently repeated aperients, and of arsenical and sulphuretted preparations, as well as of those containing cantharides. M. Hardy prefers small doses of the arseniate of soda to the other preparations of arsenic. M. de Montméja has obtained considerable success from the employment of two drops of tincture of cantharides in a glass of eau sucrée, the dose being increased up to thirty drops per diem. Its use, however, requires extreme care and vigilance. Copaiva is sometimes very useful when given internally. In addition to these means, the waters containing sulphur, of Saint Honoré-les-Bains, Baréges, Aix-en-Savoie, may be tried, especially in inveterate cases. The local treatment that is found most beneficial is the application of vapor baths, and either warm alkaline or sulphurous baths, with ointments containing the empy-

reumatic oils. It is rare for sulphuretted oils to prove of any service, and if mercurial ointments are used, care should be taken when the scabs have fallen off, lest salivation be induced. The oil of Cade, with three parts of lard, is very useful.

"NORMAL" OVARIOTOMY.—The *Medical and Surgical Reporter* learns from a correspondent in Georgia that Dr. Battey's extirpation of the normal ovaries "is a failure. The menstrual molimen and sanguineous discharge, with great suffering, still occur monthly."

MISCELLANY.

ERRONEOUS.—The *Pacific Medical and Surgical Journal* finds fault with one of our cotemporaries for stating that "three hundred women have made application to study medicine in San Francisco," and justly thinks that "a statement so improbable on its face" ought not to be circulated, at least without the authority for it being given.

ACCORDING to the *Lancet* of February 22, there are at present more candidates for positions in the British naval medical service than there are vacancies to be filled,—a circumstance which has not occurred before for twenty years. A large proportion of the applicants are Irishmen; sixteen being of this race to one Londoner and two Scotchmen.

VISITORS FROM BALTIMORE.—The building committee of the John Hopkins Hospital of Baltimore were in Philadelphia March 22, for the purpose of examining the Episcopal Hospital. The visitors while at that institution made themselves thoroughly acquainted with its construction and management.

FAILED.—It will be a matter of sincere regret to the many friends of the Jefferson Medical College if, as we are told, their application to the State Legislature for an appropriation towards the establishment of a hospital in connection with the school was denied. The grounds of the refusal are not known to us.

COMMENCEMENT.—The Philadelphia College of Pharmacy held its Fifty-second Annual Commencement on the 18th inst. The graduating class numbered ninety-four. The valedictory address was delivered by Prof. Robert Bridges, M.D.

DEATHS.—Dr. Uriah G. Bigelow, a prominent and much-respected practitioner of Albany, N.Y., died on the 24th of February, in the 53d year of his age.

Dr. Abner Phelps died in Boston on the same day, at the age of 95.

ON the 24th of March the following gentlemen were elected resident physicians to the Philadelphia Almshouse Hospital: Drs. Edward T. Bruen, James M. McCauley, John M. Keating, C. K. J. Miller, Juan G. y Guiteras.

DR. BENCE JONES, of London, the well-known authority on medical chemistry, is reported to be very ill with ascites and anasarca.

A CORRESPONDENT of the *British Medical Journal* has been "requested to attend gratuitously a woman who claimed exemption from surgical fees 'because she had a cousin whose friend was a medical man.'"

DISINFECTANTS.—A student, undergoing his examination, was asked what was the mode of action of disinfectants. He replied, "They smell so badly that the people open the windows, and the fresh air gets in."

MEDICAL DIRECTOR Joseph Beale, U.S.N., has been appointed Inspector-General of Hospitals and Fleets, his duties to begin on April 1.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending March 22, 1873, were 334; 193 adults, and 141 minors. 13 were of bodies brought from the country; making the mortality of the city 321. Among the assigned causes of death were:

Consumption of the Lungs	49
Other Diseases of the Respiratory Organs	65
Diseases of the Circulatory Apparatus	20
Diseases of the Brain and Nervous System	47
Diseases of the Digestive Apparatus	25
Zymotic Diseases (13 from Scarlet Fever)	31
Typhoid Fever	15
Casualties	5
Cancer	6
Diseases of the Urinary Organs	3
Suicide	1
Murder	1
Debility (including "Inanition" and "Marasmus")	24
Still-born	16
Old Age	11

(The interments reported for the week ending March 23, 1872, were 416.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER.		BAROMETER.
	Max.	Min.	(2 P.M.)
Mar. 16	52.0°	37.0°	30.10 in.
" 17	45.0	33.0	30.39 in.
" 18	61.0	33.0	29.99 in.
" 19	56.5	42.5	30.04 in.
" 20	42.5	40.0	29.72 in.
" 21	41.0	31.0	29.76 in.
" 22	46.0	35.0	29.97 in.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM MARCH 18, 1873, TO MARCH 24, 1873, INCLUSIVE.

MCKEE, J. C., SURGEON.—Granted leave of absence for six months, on surgeon's certificate of disability, with permission to go beyond sea. S. O. 57, A. G. O., March 19, 1873.

BILL, J. H., SURGEON.—Assigned to temporary duty at David's Island, New York Harbor. S. O. 55, Department of the East, March 22, 1873.

ALDEN, C. H., SURGEON.—Granted leave of absence for four months, with permission to go beyond sea. S. O. 56, A. G. O., March 18, 1873.

TILTON, H. R., ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Fort Wadsworth, New York Harbor. S. O. 55, c. s., Department of the East.

SATURDAY, APRIL 5, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 404.)

LECTURE VI.

MORBID GROWTHS IN THE LARYNX AND TRACHEA.

THE frequent use of the laryngoscope, of late years, has developed the fact that morbid growths of the larynx are of much more frequent occurrence than was formerly thought to be the case.

The lecturer gave a short historical sketch of the subject, from the earliest reported case of Koderick of Brussels, who in 1750 removed a laryngeal polypus through the mouth, down to the present time; in which he gave full credit to the most important monographs upon morbid growths in the larynx: those of Ehrmann, of Strasburg; Horace Green, Buck, and Elsberg, of New York; Morell Mackenzie, of London; and he referred, in addition, to the labors of Türck, Gibb, Cutter, Voltolini, Schrötter, and others.

The symptoms of a growth in the larynx are much the same, whatever may be the nature of the neoplasm, varying of course with its size and location, the character of its attachment, and its consequent interference with vocalization, respiration, and deglutition. These symptoms are cough, dysphonia, dyspnœa, dysphagia, and pain. Some growths do not give rise to any characteristic symptoms, and are discovered on laryngoscopic examination only.

Cough is present when the tumor encroaches on the glottis, or is of large size. It is dry, or accompanied with expectoration of mucus, or mucus and blood, according to the nature of the growth, and the inflammatory condition of the larynx. The sound of the cough is clear, hoarse, muffled, brazen, or aphonic, as the case may be.

Dysphonia occurs to a greater or less extent according to the interference with the due vibrations of the vocal cords exerted by the growth; and thus a tumor of considerable size, if at a distance from the glottis, may not give rise to marked dysphonia at all. When the growth is so situated as to encroach on the glottis or the vocal cords at intervals only, the hoarseness or aphonia, as the case may be, will be intermittent; so that the voice shall go and come, as it were, several times during the utterance of a single sentence. Usually there is a characteristic staccato mode of utterance, suggestive at once, to the practised ear, of a tumor in the larynx.

Dyspnœa exists only when the growth is large, or when there is intercurrent tumefaction from catarrhal inflammation. Dyspnœa from a pendent tumor can sometimes be relieved by change of posture. Suffocation is sometimes produced by the impaction of a morbid growth obstructing the glottis, some cases of which were narrated from the lecturer's personal experience.

Dysphagia is not produced unless the growth occupies the epiglottis, the posterior portion of the larynx, or encroaches on the pharynx.

Pain is unusual, though there is often an aching sensation, or a feeling of the presence of some foreign substance.

If the growth has acquired comparatively enormous proportions, some evidence may be present externally in an altered configuration of the larynx.

Occasionally portions of a growth become detached by cough, and are expectorated. Once in a while a growth is spontaneously detached; and at other times absorbed.

The most frequent exciting cause of growths seems to be catarrhal inflammation. Quite a large proportion of growths occur in connection with cases of tuberculosis and syphilis; though the tumors produced in such instances have very rarely any characteristic feature belonging to the tuberculous or syphilitic dyscrasia.

The most frequent variety of growth is the papilloma; but fibroma, myxoma, angeioma, sarcoma, epithelioma, and many other varieties have been observed. The papillomatous tumors are frequently multiple; the others usually single. The papillomatous growths are not apt to recur except in a phthisical patient.

These growths have been encountered at all ages. Sometimes they are congenital; though they are most frequently met with in individuals from twenty to fifty years of age. They occur more frequently in males than in females. Morbid growths may occupy any portion of the larynx, but their most frequent seat is upon the vocal cords.

A morbid growth of the larynx is a very serious affection, even if clinically benign in structure; and if of such a size as to interfere with the functions of respiration and vocalization, it demands removal by surgical procedure. Syphilitic formations, even when of comparatively large size, are occasionally amenable to constitutional anti-syphilitic treatment.

A growth of the larynx may be removed by an operation carried on through the mouth; through the incision of lateral pharyngotomy; or through the incision of laryngotomy, partial or complete, anterior or lateral.

Removal through the mouth is effected under laryngoscopic manipulation; though there are at least two cases on record of removal through the mouth in ante-laryngoscopic days: those of Koderick, in 1750, and Green, in 1845. The procedures carried on under laryngoscopic manipulation are: cauterization, scarification followed by cauterization, crushing with forceps, evulsion with forceps

or écraseur, excision with knife, scissors, wire loop, or galvano-cautery.

Small soft growths are sometimes amenable to destruction by caustics. For this purpose we employ nitrate of silver, chloride of zinc, acid nitrate of mercury, nitric acid, chromic acid, London and Vienna paste. The caustic material is conveyed in some safe special appliance, and kept in contact with the parts for a few seconds, in order to secure the formation of a slough; the operation being repeated at intervals of a few days. The first operation usually produces a distressing spasm, especially if any of the caustic material reaches the healthy mucous membrane, the tumor itself being much less sensitive. It is, therefore, essential that the operator should be certain, by repeated practice with blunt instruments, that he can touch the desired spot. The surface of the cauterizing instrument, whether brush, sponge, roughened metal, glass bulb, or solid stick, should not be large enough to cover the entire surface of the growth at once, inasmuch as the caustic spreads rapidly. The part may be touched two or three times at different points at each operation.

[Various instruments were exhibited and explained, during this lecture, for the safe conveyance of caustics within the larynx; and also various forms of forceps, knives, snares, galvano-cauteries, etc., were demonstrated; but the reporter refers the reader for details to the various works on laryngeal surgery, and to the illustrated catalogues of the surgical instrument makers.]

Forceps are, however, much more useful in the removal of laryngeal growths, in the vast majority of cases, than any other instruments. They must be properly curved, slender, and strong; and their jaws must present in the direction of the tumor which is to be seized. One pair of forceps, therefore, will not suffice for every case. Tumors are not by any means always removable at one operation, unless they are small, or of very firm consistence. Usually small portions of the growth are broken off in the jaws of the forceps, thus necessitating the frequent repetition of the operation. When as much of the growth has been removed as possible, its remnants, if any remain, or the base from which it was developed, should be freely cauterized, to repress repullulation.

The knife, and the scissors—or rather the bladed-forceps—are sometimes used to excise a growth. A large growth can sometimes be partially severed from its base in this way, and thus rendered prominent so as to become more readily seized with the forceps. Or the ventricular band may be incised so as to afford access to a growth in the ventricle. Sometimes a minute growth may be pierced at its base by a lance-pointed knife, and be detached by pushing the instrument through its root of attachment; under which circumstances it falls and is coughed out.

The wire snare is sometimes used to lasso and detach pedunculated growths; but, though much extolled by some manipulators, is not much thought of by the lecturer, who has rarely been able to use it with any satisfaction.

The galvano-cautery, in the form of blade, blunt probe, or loop, is used with a great deal of success for the destruction or removal of laryngeal growths. Some surgeons, as Voltolini of Breslau, use no other instruments, even in the entire treatment of the whole class of laryngeal diseases requiring topical interference. The only danger to be apprehended is the production of œdema, or of violent inflammation; but the numerous evidences in favor of this treatment lead the lecturer to believe that this danger is quite exceptional.

Electrolytic treatment is hardly applicable to the treatment of laryngeal growths, on account of the impracticability of retaining the needle electrode in the tumor for a sufficient time to set up efficient electrolytic action.

Almost all laryngeal growths can be satisfactorily treated through the mouth, by some of the methods mentioned. When the growth is very large, or is situated beneath the glottis, or from other reasons dyspnœa is great, or asphyxia threatened, it is advisable in special cases to perform tracheotomy before undertaking extirpation, in order to secure safety as to respiration; but a resort to this operation is rarely necessary.

Several operations are performed for gaining access to a laryngeal growth from the exterior of the body. They are undertaken in cases where it is impossible to remove the neoplasm through the mouth; where the necessities of the case do not admit of delay; where the growth is of great size, and of great extent and implantation; where it is very vascular; and where it is clinically malignant.

The usual operation consists in external division of the larynx in the middle line. The thyroid cartilage is exposed, and divided by knife, scissors, or saw, as the case may demand; but the cricoid cartilage is usually respected. Some surgeons divide the cartilage by successive short strokes of the knife from the exterior; others, and the lecturer among them, penetrate the crico-thyroid membrane, and divide the cartilage from below upwards. If the saw is used, of course it must not be carried into the interior of the larynx. In dividing the cartilage, care is to be taken to keep the knife in the middle line, so that it shall pass between the vocal cords without injuring them. The separated wings of the thyroid cartilage are then kept asunder by suitable blunt hooks, and the morbid growth is removed by forceps, snare, knife, scissors, or galvano-cautery, as the case may be; after which the stumps are thoroughly cauterized. There is usually a great deal of spasmodic heaving of the larynx during the removal of the growth, spattering blood over the person of the operator and his assistants. The blood should be prevented from flowing down into the lungs by being mopped up with small bits of sponge securely fastened to a holder.

After the operation the parts are united with adhesive strips externally and covered with a simple dressing. The room in which the operation is performed should be warm, and the atmosphere of the apartment kept saturated with steam for a few days.

Some operators perform tracheotomy before divid-

ing the larynx, but, as has been shown by Dr. Ephraim Cutter, of Woburn, Mass., this precaution is rarely necessary.

The lecturer expressed himself as opposed to the use of anæsthetics in the performance of these operations, inasmuch as the integrity of the glottis was already greatly compromised, and a diminution in the amount of oxygen respired might lead to fatal results despite the prompt opening of the air-passages, as he had witnessed on more than one occasion; and he recalled several instances where artificial respiration had been requisite to save the patient's life.

The operation of sub-hyoid pharyngotomy, as suggested by Bichat, Vidal, and Malgaigne, and performed with sundry modifications by Prat, Follin, Langenbeck, and Debrou, was described; but, inasmuch as the lecturer expressed his concurrence in the opinion of Mackenzie, that in the majority of the cases suitable for this operation the tumor could be removed through the mouth, we do not consider it necessary to enter into details.

Mention was also made of Luschka's proposed operation for gaining access to growths in the ventricles by lateral division of the thyroid cartilage.

Tumors of the trachea are much less frequent than tumors of the larynx. Cases have been recorded by Morgagni, Ruysch, Baillie, Gibb, Türck, Schrötter, and others. Some cases of involution of the tracheal parietes from the pressure of growths from the outside have been incorrectly reported as tumors of the trachea. They would give rise to phenomena of obstruction similar to tracheal tumors, but should be differentiated from them. Tracheal tumors are usually small; large size being incompatible with respiration; so that, as a rule, they would not give rise to any specially characteristic symptoms during life.

Laryngoscopic examination has given occasion to the recognition of tracheal tumors, but most of the cases reported were post-mortem. Schrötter has succeeded in removing a tracheal tumor under laryngoscopic manipulation; but this requires much more skill than falls to the lot of the mass of the profession; so that the removal of such growths would generally require the external division of the trachea.

Tumors of the bronchi have also been observed by Türck and others; but on post-mortem examination only. It would be exceedingly difficult to diagnose the presence of an intra-bronchial growth, since the symptoms of obstructed respiration to which it would give rise might as well be explained by other more likely conditions. It would be the merest accident that a tumor high up in a primary bronchus could be detected in the laryngoscopic image; and it would be entirely out of the reach of direct surgical interference.

CANCER OF THE LARYNX AND TRACHEA.

Both primary and secondary cancer have been observed in the larynx and in the trachea. It is doubtful if there are any special symptoms by which primary cancer could be distinguished at an early date; but in its maturer stages it is readily recognized in the laryngoscopic image by a peculiar irregular, nodulated, vascular, and sometimes ragged appearance; and by the lymphatic involvements, the cachectic expression, and sometimes the lancinating pains. Portions of the formation can readily be removed for microscopic examination. Cancer of the larynx may be scirrhous, medullary, or epithelial. It may affect any portion, but seizes most frequently upon the epiglottis first, and gradually extends. The tongue becomes involved by extension of the disease, and sometimes the cancer of the larynx is preceded by extension from the tongue, or extension from the œsophagus.

The symptoms are at first those of catarrh, and subsequently those of laryngeal obstruction generally, dyspnœa, dysphagia, dysphonia, and so on.

The disease is necessarily fatal. Proposals have been made to exsect the larynx; but, even if this could be safely done, it is likely that the disease would soon be manifested in the neighborhood.

Cancer of the trachea is a very rare affection. It could hardly be diagnosed during life, but would afford symptoms of obstruction or stenosis. Such symptoms, in connection with cachexia, might lead one to suspect cancer of the trachea, but only the microscopic examination of expectorated fragments could establish the diagnosis with certainty. But few cases of cancer of the trachea are on record.

ORIGINAL COMMUNICATIONS.

TWO CASES OF ANILINE-POISONING.

BY ALFRED L. CARROLL, M.D.,
University of New York.

THE case of aniline-poisoning reported in the *Medical Times* of March 1, by Dr. Richardson, recalls two similar instances occurring in my practice last summer.

On the 15th of August, 1872, I was asked to see M. B., an unmarried woman, aged 30, who had a localized eczematous eruption affecting both knees and extending some inches above and below the joints. There was considerable tumefaction, much redness, and intolerable itching of the skin; the condition being that of *eczema rubrum*. The circumscribed and symmetrical character of the affection, coupled with the absence of constitutional disturbance of any sort, puzzled me at first; but, while questioning my patient, I spied, under the bed, a strip of red flannel, the brilliant scarlet hue of which told clearly of aniline dye. Following up this clue, I learned that she had had "rheumatic" pains in her knees, and, believing that there was some special virtue in red flannel, had purchased a couple of yards of that popular remedy at a village shop, and bandaged her knees therewith for a fortnight previous to my visit. The peculiar color of the flannel, and the limitation of the eruption to the regions covered by the bandage, placed

the diagnosis beyond doubt. To allay the irritation, I first prescribed the ordinary acetate of lead and opium lotion,

℞ Liq. plumbi subacetat., f℥ij,
Tinct. opii, f℥j,
Aquæ, Oj;

and afterwards benzoated oxide of zinc ointment, under which, with an occasional saline laxative, recovery speedily ensued.

Only a few days afterwards, I was consulted by a gentleman who had on his left wrist a band of vesicular eruption, forming a complete bracelet, which he himself attributed to some accidental contact with "poison-vine" (*Rhus radicans*). The exanthem being confined to a covered situation, however, led me to further investigation, and I discovered that he had shortly before bought a pair of thread gloves, the wrist-bands of which were ornamented by a broad stripe of aniline purple. Owing to the warmth of the weather, he informed me, he had never put on the right glove, the left alone having been worn for several days. In this case, as in the preceding one, the disease yielded readily to local treatment.

I believe that with aniline compounds, as with lead, an exceptional susceptibility exists in certain persons, which is not shared by the majority. Just as we occasionally meet with instances of saturnine poisoning from drinking water conveyed through lead pipes which harmlessly supply thousands of households, so numbers of people habitually wear articles dyed with aniline, without suffering evil effects. Notwithstanding that the market is flooded with such wares, which find very many purchasers, I have met with but one case of poisoning besides those reported above,—that of a gentleman whom I saw in consultation four or five years ago, whose feet and ankles were covered with vesicles from some brilliantly-colored striped socks which he had been wearing for several weeks in ignorance of their toxic property.

New Brighton, Staten Island, N.Y., March 21, 1873.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR S. D. GROSS, M.D.

Reported by Frank Woodbury, M.D.

LITHOTOMY.

THIS middle-aged man comes from Williamsport, Pa., with a history of having suffered, for at least three years, from a vesical calculus, his symptoms being so well marked as scarcely to admit of a doubt regarding the correctness of this diagnosis. He complains of the usual irritability of bladder, and almost constant desire to urinate, which act has lately been accompanied by gradually increasing pain and difficulty, the stream frequently being stopped while in full flow; and even when this does not occur there is a feeling of incomplete emptying of the bladder after micturition. His general health becoming impaired, he has finally been led to seek our aid, hoping that a surgical operation will relieve him of all his troubles by removing their source.

The patient being under the influence of chloroform, we proceed to examine him; and here I pause to again impress upon you the importance, whenever you perform this operation, of making it an invariable rule to always sound your patient's bladder and positively find the stone before you proceed to operate, no matter how strong the physical signs may be, or whether or not you may have found it on previous examinations: by this means you will avoid a serious and perhaps fatal mistake,—one that I regret to say has been committed quite a number of times. When you examine your patient, let him be perfectly nude and lying on his back in bed, with a blanket thrown over him to ward off a possible chill; never hamper yourself by attempting to conduct the examination with the clothing only partly removed. A sound with an abrupt curve is the best to use in exploring the bladder, especially where you have to deal with long-standing disease of the organ, and probable enlargement of the prostate gland. As this is moved in the bladder, you hear the characteristic sound produced by striking the metallic instrument against the stone, the resistance from which is distinctly evident to my hand. The grating or friction sound, by itself, is frequently delusive, as it may be produced by a fasciculated condition of the bladder, or an incrusted condition of its mucous membrane,—particularly at the bas-fond of the organ,—caused by a lamellated deposit of earthy material from the urine; this alone, therefore, is insufficient evidence of a calculus, and you should never be led to cut a patient on such an incomplete diagnosis. A sounding-board has been devised, which, when attached to the handle of the sound, intensifies the metallic click produced on striking the stone; but I have never had occasion to use it, feeling confident that if a man cannot find the calculus without its aid, he certainly will not be able to do so with it. The bladder should be full of urine at the time of examination, and the rectum empty. If the concretion is small, it might readily be lost in a large amount of fluid, and the surgeon be unable to find it; in such a case the hollow sound is of great advantage; by its aid the urine can be gradually drawn off so as to facilitate the discovery of the stone, or, on the other hand, tepid water may be cautiously injected through it, so as to give the requisite degree of distention to the bladder, when it contains too little fluid. If the stone is not readily found, rotate the instrument so as to examine the fossa immediately behind the prostate gland. When this gland is enlarged by disease, or hypertrophied by old age, a calculus might readily be concealed in this situation, from which, however, it may easily be dislodged by inserting the forefinger into the rectum and lifting up the base of the bladder.

When the stone is found, the question comes up as to the relative merits of lithontripsy and lithotomy, and their applicability to the individual case. Shall the stone be crushed, or cut for? Although the relative mortality of the two modes of operating is in favor of crushing, yet the liability to relapse is much greater than when the calculus is removed bodily. Where the patient is in a condition to bear the operation, and the concretion is ascertained to be large, lithotomy, in my opinion, should always be preferred. Whereas in lithontripsy, or lithotrity as it is oftener called, some of the fragments almost inevitably remain to act as nuclei for fresh growths, this is entirely avoided in lithotomy, for if any fragments exist they will either be removed at the time of the operation, or be washed out in the course of the treatment. As to the mortality after this operation, it depends very largely upon the general condition of the patient, and the state of his bladder and ureters at the time of operating. With proper treatment of the patient before and after the operation, the danger is very much decreased. Although in adults the general rate of deaths is about one to eight or nine recoveries, children rarely die from the opera-

tion. I have performed the lateral operation upon fifty-two under the age of puberty, with but a single fatal result. I attribute my success in these cases, as well as in adults, not only to the care exercised in performing the operation, and strict after-treatment, but also to my rule of never operating until the patient has gone through a course of preparatory treatment. If the patient is brought from a distance, you should not even sound him, until he has recovered from the fatigue of his journey and become somewhat accustomed to his new surroundings.

The prognosis of this affection varies. Some cases are recorded where the stone has broken in the bladder spontaneously, causing the death of the patient from cystitis; in other cases the pressure of the stone has led to ulceration and perforation of the wall of the bladder, producing extravasation of urine, followed generally by fatal peritonitis in a few days, or leading to extensive inflammation and suppuration, seriously threatening life. In every case, the stone being a constant source of irritation to the mucous membrane of the bladder, there is always more or less cystitis, followed by disease of the ureters and kidneys, from extension of the morbid action, thus interfering with the important function of excretion.

The first symptoms produced by a vesical calculus are those of functional disorder; but these are soon followed by others denoting structural change. The mucous membrane of the bladder, from increased vascularity, produced by the constant irritation, soon passes into chronic inflammation, and becomes covered with granulations. The muscular coat becomes hypertrophied from constant ineffectual attempts to contract upon and expel its contents, and the fibres may separate in one or two places, forming hernia of the bladder, or a sacculated bladder. The obstruction to the flow of urine is augmented by the prostate gland, which early becomes diseased and greatly enlarged, in some instances encroaching seriously on the rectum, interfering with its functions and producing hemorrhoids. Although the symptoms may be palliated and the patient's life protracted by hygienic and medical means, the only effective treatment is the removal of the concretion by an operation.

Having determined upon performing lithotomy by the lateral operation, and the patient being ready, we bring him to the foot of the bed, with his sacrum resting upon its edge. His knees and thighs are strongly flexed and held widely apart by assistants, the perineum is shaved, and the staff-holder introduces the instrument into the bladder and hooks it up under the pubic arch, so as to pull it away from the rectum. The bowel was emptied by enema this morning, and I introduce my finger into it to make it contract, so as to be out of the way. During the operation, protrusion of the intestine, through the opening, is not uncommon, especially in the straining efforts of children; and in these cases great care is required to avoid wounding the rectum.

The operation, performed in the usual manner, enables me to introduce the lithotomy-forceps and extract this large calculus, which is of the uric acid variety. In a large proportion of the cases the stone is found to be of this kind. The phosphatic variety is generally considered to be due to some defect of innervation, or lesion of the spinal cord.

Hemorrhage following the operation is rare in children, but in adults, who have labored for a long time under vesical irritation, bleeding from the bladder and prostate gland is common. Sometimes the transverse perineal artery requires a ligature; but in most cases plugging with pieces of ice, or cotton impregnated with Monsel's solution, will be found sufficient. If there is no hemorrhage in this case, the wound will be left in its present condition, after washing out the bladder with warm water by means of a large syringe. I do not insert a canula, as it is of questionable utility and serves as a source of irritation. The patient is placed in bed upon the usual oil-cloth and draw-sheet, and a full anodyne is given immediately, to relieve pain and irritation. The urine will pass through this aperture for the next thirty-six to forty-eight hours; then the tumefaction of the lips of the wound will close the orifice, and the fluid will pass by the natural channel. In a few days it will again flow through the wound, which, however, in fifteen to eighteen days will be completely closed by granulation.

The patient's bowels shall be confined for three or four days with opium, at the end of which time a mild purgative may be given. He must be kept clean, so as to avoid excoriations and bed-sores, and he will be given light but nourishing diet.

Ten days after the operation.—The patient has had no unfavorable symptoms, and is so nearly well that he will probably go home at the end of the week.

RHEUMATISM OF THE URINARY BLADDER.

This man, 39 years of age, complains of pain in the groins and frequent micturition, which attacked him two weeks ago and is increasing. He passes his water, on an average, about twenty times in the twenty-four hours, and is compelled to get up at night, sometimes twelve or fifteen times, for that purpose. The urine is never bloody, and he voids it in a very small stream with considerable straining, but without any particular pain at the time. He is troubled with some flatulence, constipation, and hemorrhoids, but his general health is not much affected, and he says he would sleep well enough at night if it were not for his bladder. He informs us that he has had rheumatism, but not since this trouble commenced.

On passing the sound, we detect no stricture or calculus in the bladder to account for the symptoms; which in all probability are produced by rheumatism or neuralgia, as the bladder is subject to these affections just as any other organ of the body is. We will, therefore, give him ten grains of quinine morning and evening for five days, and

℞ Morphiæ sulph., gr. $\frac{1}{8}$,
Vini colchici, gtt. xlv. M.

at bedtime, each night.

The morphia will relieve the irritability of the bladder, and the quinia and colchicum will act upon the rheumatism. If this is insufficient to procure for him good rest at night, without which his health cannot be restored or maintained, we might give opium or morphia suppositories at bedtime, or inject half a drachm of laudanum, or give morphia hypodermically, in addition. He shall be kept warm, in the house, and may eat light food; but coffee, pastry, and the red meats are interdicted.

One week later.—The patient reports himself as being much improved. He is now compelled to empty his bladder only seven or eight times in the twenty-four hours, and not oftener than four times in the night, instead of every half-hour, as before. He has no pain in his side, and no scalding or tenesmus.

There is marked improvement here; and in a short time he will have fully recovered. A full dose of morphia or quinia will frequently accomplish more than a dozen smaller ones, on the principle that when a man is hungry he wants a full meal. We must give medicine to accomplish a certain object, and should always give enough to obtain its full therapeutic effect. We will now give him

℞ Quiniæ sulph., gr. x,
Morphiæ sulph., gr. $\frac{1}{3}$. M.

which he shall take at night as before; and to modify the urinary secretion, he may take

℞ Infus. uvæ ursi, f℥ij,
Sodæ bicarb., gr. x.
M.—S. t. d.

(He returned three days later, and reported himself comfortable and almost entirely cured.)

CONGENITAL CYSTIC TUMOR.

The mother of this infant states that when it was born, six months ago, this tumor on the neck existed; although it has now attained a much larger size than then, and is still increasing.

On examining this swelling, we notice that it is of large size, and occupies the greater part of the left side of the neck, extending from the middle line in front, around on the side, and from the hyoid bone to the clavicle. Although it seems superficial, it probably sends ramifications deep among the muscles of the neck. It is compressible, although some parts are harder than others. The skin over it is natural, with no abnormal heat or discoloration, and no evidences of pain are elicited by pressure.

This belongs to the class of cystic tumors, which are frequently congenital, occasionally attaining a large size before birth, and continue to grow afterwards. Although they are sometimes met with in the axilla, breast, and other portions of the body, the neck seems to be the favorite seat in these cases. If we should open this it would probably be found to consist of a number of delicate, non-communicating cysts, varying from the size of a pea to that of a pullet's egg, containing a clear fluid resembling serum, and supplied with blood-vessels, nerves, and absorbents. The tumor may be unilocular, however, in which case its walls may have become quite thick from condensation of the cellular tissue.

As this is steadily increasing, its volume may become so great as to seriously affect respiration and deglutition. Several modes of operation have been suggested for the treatment of these cystic tumors in this situation. First, to open the sac and let it granulate; second, to insert a seton and leave it in long enough to excite adhesive inflammation; third, to draw off the fluid with a trocar and canula, and inject dilute tincture of iodine for the same purpose; and lastly, to make an incision over the tumor through the skin and dissect it out bodily. The last is the most effective of all, but it is not always feasible. We will puncture this and let out the fluid, hoping that sufficient inflammation may be excited by the knife to effect a cure, at least of the larger cysts.

TRACHEOTOMY PERFORMED BY GALVANO-CAUSTIC APPARATUS (*The Practitioner* for March, 1873; from *La France Médicale*).—This proceeding was originally introduced into practice by M. Amussat *fils*, in 1870, and was first performed on a boy aged thirteen. Dr. Amussat passed a curved needle carrying a double thread of platinum through the integuments, so as to embrace at the same time about two centimetres of the trachea in the loop. After the removal of the needle, he seized one of the threads with two forceps in communication with an electric battery, and made the section of the tissues comprised in the loop without hemorrhage. The trachea being opened, the child coughed violently, and expelled the foreign body which was in the trachea, and for which the operation had been performed. A week subsequently the wound was healed, and the patient well. The first number of the *Archives Générales de Médecine* for 1873 contains a series of eight observations by different operators, the particulars being furnished by M. Bourdon. The operation as performed by M. Verneuil is as follows. There are three steps: the incision of the skin and of the soft parts; the incision into the trachea; and the introduction of the canula. 1. After having marked with the nail the point which corresponds to the inferior border of the cricoid cartilage, the extremity of the blade of the instrument is passed in and made to cut downwards to an extent corresponding to the diameter of the canula that is desired to be introduced, and the thickness of the soft parts covering the trachea. In the infant, the first incision, which is made with great rapidity, ought not to be made deeper than the skin, lest the trachea should be opened at the outset and there be a risk of cauterizing it, if not of perforating its posterior wall. 2. The trachea being exposed, it should be seen that the wound corresponds to the middle line, and the point of the knife should be made to penetrate into the first interspace between the cartilages and the necessary number of rings divided. 3. The introduction of the canula is the last and easiest of all. This proceeding, it is obvious, differs considerably from that of M. Amussat; but, in view of the difficulties that are presented by the adult when tracheotomy is required, M. Bourdon prefers the latter.

LATENT GONORRHŒA IN FEMALES (Nöggerath: *Centralblatt f. die Med. Wiss.*, No. 49, 1872).—This writer asserts that, as a rule, gonorrhœa remains uncured during the life of the individual once affected, and that the disease may be communicated to another individual even during the period of latency, whether the same last a few months or from one to five years. Hence he thinks that a man who once has had the gonorrhœa almost always infects his wife, and that the *entire host of female ills*, especially incurable perimetritis, inflammations of the ovaries, and sterility, is the result of this contamination.

The writer cites histories of fifty cases, some of which seem to show a connection between the chronic forms of gonorrhœa and certain diseases of women. In other cases, however, the men had been well for many years, and their wives had never complained after their marriage until abortions, normal labors, or instrumental deliveries had taken place.

The writer also lays some diagnostic stress upon a fungus which he says he has found in the latent gonorrhœa of females, and in the secretion of a fresh gonorrhœa.

INOCULATION OF SYPHILIS BY MEANS OF VACCINATION (Eulenberg: *Berliner Klin. Wochenschr.*, Sept. 16, 1872).

At a meeting of the Medical Society of Berlin, Eulenberg expressed the following opinions upon the abovementioned topic:

1. Congenital syphilis can remain latent during the first three months.

2. Syphilis is not communicable by vaccination, if only pure lymph is used.

3. A minimal admixture of blood or scab can be the communicator of syphilis. This has been proven by experiments instituted quite recently by Reiter, in Germany, and Hutchinson, in England.

4. If the conveyance occur by means of blood or scab, it is of no moment whether the vaccination is done by means of a cut or by puncture with a needle.

Reiter, however, has asserted that a conveyance of the virus is impossible with a needle, and can only be communicated by a cut.

5. We may say, not with absolute certainty, but in all probability, that vaccination has an influence in producing a slower progress in the syphilitic trouble.

6. The preservation of the virus in glycerin is worthy of our attention. By this method of treatment the foreign matters connected with the virus are floated off, and the latter will remain behind in the glycerin in the form of a perfectly transparent lymph.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, APRIL 5, 1873.

EDITORIAL.

SOME SINS OF DRUGGISTS.

STRICTLY speaking, the business of an apothecary is to sell drugs, either on the prescription of a physician or by the orders received from purchasers. To thoroughly qualify himself for so doing, for his own and his customers' best interests, he needs a special education, and a complete acquaintance with chemistry, pharmacy, and pharmaceutical manipulations, drugs, their impurities and adulterations, with the various markets in which he has to seek his supplies, and other details which need hardly be enumerated.

In the pursuit of this business, there can be no question that experience is gained which may be turned to account in the prescribing of medicines as well as in their preparation. New agents may be discovered, or new forms and combinations of remedies already known. Hence the enlightened physician will always be apt to receive and weigh hints on these matters from apothecaries, and to acknowledge the value of such assistance.

But the druggist does not, and cannot, obtain that knowledge of disease and its treatment which alone could warrant his undertaking the responsible office of a prescriber. Still less is he able to do what no physician would venture upon,—to give prescriptions for a whole class of disorders. Hence —and now we come to our first application—the entire system of cough-syrups, alteratives, worm-medicines, and other nostrums (whether backed up or not by well-known names), kept for sale, advertised, or recommended by druggists, is altogether objectionable. At one most respectable store in this city, a large business is done in "Dr. Mütter's Cough Syrup." Would Dr. Mütter have consented during his life to the advertisement and sale of a medicine put up on a prescription of his, as a remedy for "cough"? And is it fair to trade upon his name and reputation, now that he is dead, in a way that he, living, could not have sanctioned? We do not doubt that in some cases this formula may be a very good one; but we insist that it is utterly contrary to ethics and to sound sense to recommend it for the general treatment of coughs, simply because Dr. Mütter occasionally employed it.

Our second point is even a more serious one. A few days since, a prescription of ours for some pills containing quinine was taken to a drug-store on Market Street. When the pills were sent to the patient, the box was wrapped in a paper, within which was also enclosed a circular, setting forth the vast merits of "Dr. Hadley's Great Medical Preparation for consumption, inflammation of the lungs, coughs, colds, sore throat and breast, bronchitis, liver complaint, blind and bleeding piles, asthma, hooping-cough, and diphtheria." A more thoroughly quackish advertisement never came under our notice. The patient asked us if this was a common practice with good druggists. We need hardly say that this prescription, sent to that store by accident, will be the last one of ours that ever goes there.

A good understanding between physicians and apothecaries is extremely desirable, and, in fact, is essential to the best interests of both, and of the public. How to bring it about seems as yet to be an unsolved problem. We fear it will be a long time before the earnest attention and the intelligent action which the subject demands will be bestowed upon it. That something ought to be done, we think the facts now mentioned, with many others before known, afford ample demonstration.

CORRESPONDENCE.

REORGANIZATION OF THE AMERICAN MEDICAL ASSOCIATION.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—Having repeatedly been requested to express my views respecting the reorganization of the American Medical Association,—a necessity universally conceded,—and believing that the time is at hand when this must be effected or the Association be

abandoned, I respectfully submit, although not without hesitation, the subjoined remarks as the result of my anxious deliberation upon the subject.

It is well known, both to the members of the Association and to the public at large, that since the close of the late war the harmony and deliberations of the Association have been disturbed, at every annual meeting, by the introduction and discussion of topics entirely alien to the real objects of such an assembly. Owing to this fact, the very existence of the Association has more than once been endangered. At the meeting in Philadelphia a year ago, many of the oldest and most prominent members, disgusted with previous proceedings, were ready, in the event of a repetition of difficulties, to withdraw, and to unite themselves into an association founded upon a different basis of representation, convinced that the existing order of things, if persisted in, must speedily bring about the destruction of the Association. They had become tired of these seemingly everlasting questions about the admission of women and negroes, and other matters equally irrelevant and subversive of good order and good feeling. They saw that the constant reopening of such discussions would inevitably have the effect of impairing the usefulness of the Association, and of alienating its members from each other, instead of strengthening, as was the original design of its distinguished founder, Dr. Davis, the bonds of good-fellowship, of promoting social intercourse, and of advancing the best interests of a great and noble profession. They saw that political demagogues, from misguided views and a desire to ventilate their philanthropy, were ready, if they could not accomplish their purposes, to sacrifice the Association, by driving from its ranks those who were of a different mode of thinking. It was for these reasons that the caucus already alluded to was held the evening immediately preceding the meeting in this city last year, the men composing it being determined to secede if, in their judgment, it should appear that longer fraternization upon agreeable and profitable terms should be impracticable. Fortunately, although certain elements of discord were, as usual, introduced, and marked our proceedings, wiser counsels prevailed, and the meeting, apart from these disturbances, was in many respects a most pleasant one, long to be remembered by those who enjoyed the hospitality of this great and beautiful city.

The alterations in our constitution, calculated, in my opinion, to meet these contingencies, are,—

First, the appointment of a medical council, consisting of not less than ten members, a majority of whom shall be residents of the place of meeting, to whom shall be referred all applications for membership, all questions of ethics, and all other business matters, and whose decision shall be final. Such a body, composed solely of wise, judicious, and experienced men, sitting as a kind of court, or board of censors, should hold office for only one year, elect its own president and secretary, and hold quarterly meetings, the last not earlier than two days before the annual meeting of the Association.

Secondly, the Association should consist exclusively of members of State societies, who shall be elected at the annual meetings of such societies; the number of delegates to be optional, but not less, if possible, than twenty-five or thirty. They should hold office for one year, but their attendance should entitle them to permanent membership, and to a vote upon every question in the Association.

If the *outside* affairs of the Association were managed by a properly organized council, such as is here contemplated, the result would be to prevent the introduction of a vast amount of irrelevant and objectionable matter, which, in the existing state of things, is a source of so much annoyance and irritation, and which so greatly interferes with the deliberations of an assembly of a purely professional character. No society of this kind can long survive if it permits the introduction and discussion of political questions. Medical politicians are not fit representatives of the interests of the medical profession. We want no such men among us.

The method of representation here suggested would have a tendency to stimulate the physicians of the country to unite themselves into county and State societies, thereby accomplishing great good in elevating the character of the profession at large, and unifying its interests as a great body of social and scientific men.

One of the crying evils of the Association has been the want of care in regard to the admission of its members. Its doors have swung too easily upon its hinges. While I am, in common with many of our associates, in favor of the widest latitude in this respect, and the strictest observance of democratic principles, we should nevertheless be cautious not to exceed the limits of propriety by the introduction of men not entitled to such a distinction. I have attended two of the meetings of the British Medical Association, and on each occasion I was struck with the fact that the great majority of the members were men who had rendered the profession important services as practitioners, writers, or teachers.

I have long been of opinion that the physicians of the place of meeting of the Association should not be taxed with the expenses of a public entertainment; and to relieve them of this burden, for such undoubtedly it is, I suggested, many years ago, that there should be, on the evening of the third day of the meeting, a public dinner, to which every member who chooses should be admitted on the payment of five dollars. This is the custom of the British Medical Association, and there is no reason, so far as I can discover, why a similar practice should not obtain on this side of the Atlantic. A resolution to this effect was, at my instance, adopted with great unanimity by the Association a few years ago; and, although it has not been rescinded, I have not been able to learn why it was not carried out by the committee of arrangements at the meeting here last May.

There will always be prominent and liberal-minded citizens at the place of meeting who will be glad to entertain the Association at their private dwellings, and will do all they can to make the time of the members pass

pleasantly during their sojourn among them. Last year the houses of several of our most wealthy and esteemed physicians were thrown open to the Association; and there has not been a meeting since the foundation of the Association in which a generous hospitality on the part of our profession was not a marked feature of the occasion.

I have said nothing in this communication respecting the representation, in the meetings of the Association, of our medical colleges, hospitals, and various eleemosynary institutions: let them, by all means, be seen and heard, but let them enter through the common door; as the rest of the medical profession,—the State Medical Societies.

I have the honor to be, very respectfully,

Your friend,

S. D. GROSS.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

MR. EDITOR,—I notice in the number of the *Medical Times* for February 8 that "the Trustees of the Presbyterian Hospital, being desirous to extend their benefits to the poor of West Philadelphia, have established a Dispensary on Thirty-ninth Street," and have appointed a physician and surgeon to fulfil its duties and hold daily clinics. Not long ago the Pennsylvania Hospital established an out-patient department, and appointed a staff of physicians and surgeons for gratuitous services.

Now, Mr. Editor, if all these advantages were for the benefit of the really poor, no one would have any right to question the heaven-born charity which prompted the generous trustees to establish them; but is it not notorious that ninety-nine hundredths of the patients seeking their aid are able to pay a respectable physician a reasonable fee? If this be true, is it not a great wrong to the mass of struggling physicians who are striving with might and main to earn a decent livelihood, and to shelter and support those depending upon their exertions, by giving such free access to medical advice? Every profession and trade protects its own members, save the medical. How many clergymen are willing to preach gratis who have no other resource for a living? And how many lawyers are there to be found who are willing to be such good Samaritans? As to the trades, has not every branch of mechanical work its trades-union, which not only will not permit its members to do any work gratis, but punishes them if even they are willing to work for less wages and hours than they dictate? Even the servant-girls have a kind of free-masonry among them, which will not permit them to accept minimum wages.

Why is it the medical profession should stand alone in this matter? or *cui bono* should they seek to go farther, and assist at every dispensary and out-patient department to take the bread out of the mouths of their less fortunate professional brethren? Is it not common to observe that most of the patients who flock to the clinics of the University of Pennsylvania and the Jefferson Medical College are well dressed, being frequently encased in silks and broadcloths, and, to judge by their appearance, abundantly able to pay a respectable physician? And the same is true of the out-patient departments and dispensaries with which our city abounds. Not long ago I was summoned at night to dress the hand of a lieutenant of police, who was wounded in arresting a prisoner. Not seeing my patient for several days, I concluded he was under the care of another physician. Meeting him on the street a couple of weeks after the accident, I asked him how he was getting along; his reply was that his wound was not doing well, and *that he was under treatment at the Presbyterian Hospital!* Here was a man receiving not less than one hundred dollars a month getting surgical aid gratis!

Now, how long will it be before *another* advance is made, and a staff of physicians and surgeons appointed to visit regularly at their homes any persons who may desire to avoid paying a physician for his services?

I might be called on, as I have made my complaint, to suggest a remedy; but this I conclude is the duty of the philanthropist, and where the *really poor* are concerned no difficulty need be found to insure them the best medical advice gratis. The difficulty lies in separating the sheep from the goats; and surely the experience of medical men will enable them to detect the bogus from the genuine. I wish it to be understood that I am not opposed to the establishing these dispensaries and out-patient departments, but that the unmeasured and gratuitous advice should cease to those who it is plain seek such establishments to avoid paying for medical services.

It is well known among us that, *nolens volens*, every physician in much practice is obliged to give his attention and advice to very many persons without even receiving thanks therefor, and, to the eternal praise of the profession be it said, they are few and far between who begrudge their labor in so doing; but it is evident that, such being the case, in the multiplying of numerous dispensaries and out-patient departments there will be little left to a

STRUGGLING PRACTITIONER.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, FEBRUARY 27, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. JAMES TYSON exhibited a specimen of *cancer of the pylorus*, removed from an old gentleman aged 72 years. The case was interesting in the history of its progressive development, beginning apparently about the 1st of September, 1872, with symptoms of slight discomfort in the epigastrium, which, though temporarily relieved by treatment, became gradually worse. For two or three days at a time, until about November 1, relief would be almost total under the use of bismuth and morph. sulph. At this date, however, the feeling of discomfort became one of positive nausea, though

without vomiting; this was at first attributed to the opiate, but was found to persist on its discontinuance. So a constipation which gradually supervened, and to which he was previously altogether a stranger, was also supposed to be due to the same cause, but failed to disappear on discontinuing the remedy. For some time afterwards, however, the bowels were easily moved by mild cathartic remedies.

About the 1st of November he began to complain of curious brief spasmodic attacks of pain, which appearing to begin at the epigastrium would rapidly rise to the fauces, suggesting in its whole movement the phenomena of a hiccough. These attacks, but occasional at first, increased in frequency and severity until they occurred at intervals of less than an hour and caused extreme suffering. At this time also, November 1, palpation conveyed to the finger a sense of resistance at a point in the median line about midway between the epigastrium and umbilicus. Percussion, however, gave no distinctive information, and there was no tenderness on pressure. Extreme pallor was now also promptly noticed by strangers, and close examination revealed progressive emaciation, although he continued up to this date, and indeed to December 1, to go daily to his place of business.

Opium combined with belladonna effectually checked the paroxysmal pain, and though the attacks occasionally returned with great severity, they were generally promptly controlled by an increase in the quantity of anodyne, or by a hypodermic injection of $\frac{1}{6}$ grain of sulphate of morphia.

The obstinate nausea, however, persisted with little or no abatement, notwithstanding a careful trial of all the usual and unusual remedies, including the monobromate of camphor. Morph. sulph. and bismuth. subnit. were by far the most efficient remedies. Indeed, for a time relief was so great that there was hope that the diagnosis was mistaken. Notwithstanding these symptoms of nausea, he vomited seldom, until a short time before death,—perhaps two or three times in the month of January. Constipation, however, became obstinate, and for at least eight weeks before death his bowels were very seldom open without the use of injections. By February 1, emaciation had so far progressed that the outlines of a tumor were distinctly discernible by palpation, still in the median line as above described. Percussion gave distinct evidences of the existence of a tumor in the same situation, and the pulse of the aórta contributed to it a pulsation; there was a distinct upheaval with every systole of the ventricles. Food now had to be administered altogether in the liquid form, and in very small quantities in order to secure its retention; and even the smallest quantities were vomited. There was never, however, vomiting of blood. There was no disposition to take food,—no hunger whatever; and for four or five days before death almost nothing was ingested. He died Saturday, the 22d of February, 1873.

A post-mortem examination forty-two hours after death revealed a firm scirrhous mass surrounding the pyloric orifice, and so far encroaching upon its lumen as to permit the passage of the little finger only with extreme difficulty. No other organs were involved. There was apparently no erosion of the mucous membrane at the pylorus.

Remarks.—The situation of the tumor,—in the median line midway between the umbilicus and the epigastrium,—together with the imperfect development of gastric symptoms in the early stage of the disease, led me to suspect that the pancreas was involved, and perhaps the primary seat of the disease, an opinion in which Dr. Da Costa, who saw him in consultation, concurred. The administration of oil, however, was not followed by its appearance in the stools.

The PRESIDENT remarked that in his experience with cases of cancer of the pylorus he had also met cases in which the tumor was in the median line, but that he had also met very large tumors with dulness corresponding in position to the normal situation of the pylorus.

The specimen was referred to the Committee on Morbid Growths, who reported it to be a "specimen of *scirrhus ventriculi*, which involves the mucous and submucous layers of the stomach. The amount of dense white connective-tissue stroma strongly predominates over the cellular elements, which are of small size, yet having distinctly the epithelial type, and generally arranged in long tubuli, as though they had originated in the ducts of the mucous glands."

Dr. J. EWING MEARS presented a specimen of *cystic myxo-sarcoma* removed, post mortem, from a patient of Dr. O'Hara, aged about 50 years. It formed a large mass, estimated to weigh between forty and fifty pounds, occupying the abdominal cavity, and with no discoverable attachment. An interesting feature in connection with the case was that the patient had within the past three years been relieved of two sub-mucous fibroid tumors of the uterus, one spontaneously, while the second was removed by Dr. O'Hara, after having partially passed through the os.

Dr. Mears thought that the tumor exhibited may at one time have been a pedunculated fibroid tumor of the uterus, developing into the abdominal cavity, and that the pedicle, becoming much attenuated, was finally detached; while the tumor itself continued to be nourished by the adhesions which had formed not only to the parietes of the abdominal cavity, but also to the adjacent viscera.

The specimen was referred to the Committee on Morbid Growths, who reported as follows:

"Your committee, having examined the colossal abdominal tumor presented by Dr. Mears, beg leave to report that they consider it to be a myxo-sarcoma.

"Different histological elements were found to exist in different portions of the growth. The prevailing structure, however, is the sarcomatous, with its large, round, nucleated cells: these are imbedded in a delicate network of fibrillated interstitial substance. A few giant cells, containing eight to ten nuclei, were also observed.

"At other points, where the growth assumed a softer, semi-transparent, jelly-like consistence, the prevailing structure is myxomatous, with its stellate anastomosing cells, imbedded in a hyaline substance that is rendered cloudy upon the addition of acetic acid.

"From the microscopic appearances alone, and from the meagre post-mortem records furnished to the committee, they are unable to determine whether this growth should be regarded as originating from the uterus, or whether it may not be a myxomatous degeneration occurring in a tumor of the omentum.

"Klebs, who has examined a number of immense and rapidly-growing abdominal tumors closely in every respect resembling this specimen, states that they are, as a rule, either lympho-sarcomata of the mesenteric glands, or myxomatous degenerations of lipomata of the omentum."

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

MARCH 3, 1873.

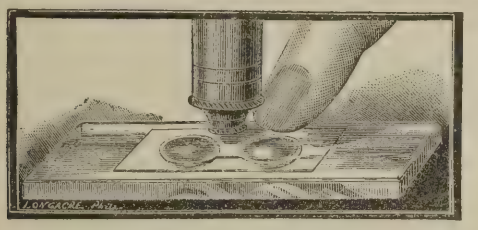
DIRECTOR W. S. W. RUSCHENBERGER, M.D., in the chair.

PRESENT,—Drs. I. Norris, Stellwagen, Tyson, Leconte, Trueman, Richardson, and Messrs. Betts, Warner, and Corlies.

Visitors,—Dr. Thomas Penrose, U.S.N., and Mr. Holman.

The report of the committee upon Dr. James Tyson's paper on the Microscopic Study of Blood and Epithelium, recommending it for publication in the *Philadelphia Medical Times*, was read and adopted.

Mr. D. S. HOLMAN, Actuary of the Franklin Institute, on invitation from the Director, Dr. RUSCHENBERGER, exhibited his Improved Glass Slide for Microscopes, and explained its construction and mode of manufacture.



This slide is composed of the usual slip of glass, such as is ordinarily used by microscopists; but, instead of the customary plain surface, two concave depressions are ground in the upper side (see figure), and connected by one or more shallow canals, carefully cut in such a way as to present on transverse section a gradually increasing depth up to about $\frac{1}{100}$ of an inch. In using this slide each excavation is to be partly filled with the fluid under inspection, and the remaining space in each is to be charged with common air; the large thin glass cover being applied so as to seal up both cavities and the communicating canal, over which it will be retained (as stated by Mr. HOLMAN) by atmospheric pressure alone. In this way is secured what the inventor terms a double *thermal pressure chamber*, either division of which can be made to emit a minute portion of its contents through the delicate canal and pass the same into the opposite depression, by means of the sensible heat radiated from a single finger of the operator brought near it for that purpose. The most complete control is thus obtained over even a single red blood-corpuscle, which may be arrested in the canal, held stationary under observation, and actually turned over in the focus.

The action of this ingenious piece of apparatus was tested by several of the members present, who united in bestowing upon it their hearty approval.

Mr. JOHN WARNER inquired why the fluid in the communicating canal did not run down into the concavities on either side of it, which certainly admitted of its flowing to a lower level.

Mr. HOLMAN replied that it was on account of the force of capillary attraction, which caused the liquid always to occupy the smaller crevices, whilst the air-bubble filled up the larger space; just as water would pass through a much more minute opening than air would do, because of the power of attraction for the liquid possessed by the sides of an aperture.

Dr. ISAAC NORRIS remarked that he believed some modification of this admirable contrivance would prove most useful to scientists as an extremely delicate differential thermometer, since the ball of the finger, even when held at a distance of two or three inches from the cavity on either side of the fine canal upon the slide, would actually give off enough radiant heat to expand the air-bubble nearest it, and so cause a rapid current of blood-corpuscles along the narrow channel beneath the microscope-lens. Of course for this purpose some modification in the shape of the apparatus might be necessary, but the important principle involved would still remain the one he now advanced,—namely, the application of the microscope to the detection and observation of those minute currents resulting from expansion of the air occupying either cavity, in consequence of an almost infinitely small rise in temperature, as compared with that of the other side. Dr. NORRIS thought the "Holman's improved moist chamber and current cell," as he hoped it would always be called, must likewise prove of great service in studying the phenomena of crystallization; as, for example, when crystals were formed under the eye of the microscopist, by double decomposition of two solutions contained in the excavations of the slide and cautiously mixed together in the delicate canal which united them.

Dr. JOSEPH G. RICHARDSON observed that some months since, in endeavoring to investigate the changes undergone by human blood preserved for several days without desiccation, he had felt the need of such a piece of apparatus as that now exhibited by Mr. Holman, and had contrived a slight modification of Stricker's moist cell, which, however, in most cases would be far inferior to the very ingenious slide now on the table. His improvement of Stricker's putty cell enabled the observer to examine a fluid without being obliged to retain his microscope in the inconvenient perpendicular or German position, and consisted in a small glass cover about half an inch in diameter, upon which a minute drop of blood, for instance, was to be placed, and a larger cover about one inch across. This latter was to be laid upon the little one, which would adhere to it, and remain attached with a film of blood between when transferred to a slide and pressed down gently upon a ring of putty, as directed by Stricker in his excellent Manual of Histology.

Mr. HOLMAN, in reply to a question, said that a drop of blood the size of a pin's head was large enough for examination, all that was required being that we should have enough fluid to fill up the little canal and make a very narrow rim of liquid around the edges of the two cavities it joined. He believed that physicians would find the apparatus very useful for collecting, at a distance from home, specimens of blood, pus, cancerous discharges, etc., for microscopic examination several days afterwards.

Dr. TYSON inquired upon what part of the slide the drop of fluid was to be placed when preparing a specimen for preservation and subsequent investigation.

Mr. HOLMAN answered that he had found it advisable to apply the drop to the middle of the canal, and allow it to flow down on each side into the excavations, either before or at the moment of laying on the thin glass cover.

Dr. RICHARDSON asked how long Mr. Holman had found that blood-corpuscles, cancer-cells, etc., would remain unaltered when prepared in this way for examination.

Mr. HOLMAN remarked that one specimen of blood upon the table had been thus mounted six days previously, and that the only change observable was the alteration of some of the red corpuscles from a biconcave to a spheroidal shape.

On motion of Dr. TYSON, it was unanimously resolved that the thanks of the Section be tendered to Mr. Holman for the very great favor he had conferred by exhibiting his ingenious moist slide to the members this evening.

REVIEWS AND BOOK NOTICES.

LESSONS IN PHYSICAL DIAGNOSIS. By ALFRED L. LOOMIS, M.D., Professor of the Institutes and Practice of Medicine in the Medical Department of the University of New York, etc. New York, William Wood & Co., 1872.

These lectures were first published at the request of Prof. Loomis's classes in physical diagnosis, and now

appear in a third edition, revised, and with the addition of five new "lessons,"—three on the examination of the urine, and two on the mechanical aids to diagnosis.

The method of teaching adopted by the author is simple, and he has generally made himself clear and readily understood.

The first two sections are on the examination of the lungs and heart, and are calculated to give the beginner great assistance in the study of these organs in health and disease. This is the best portion of the book, of which it occupies more than one-half.

The physical examination of the abdomen is next taken up. It is impossible to write a complete treatise on diagnosis as applied to the abdominal organs without going at length into their pathology; which, of course, could not be done in a work of such brief limits as this. A short description, however, is given of the anatomy and morbid changes which occur in these viscera; but, owing to its want of completeness, the reader will, we fear, receive some erroneous impressions.

For instance, we are told that in cirrhosis of the liver there is contraction of this organ. This is certainly true of the latter stages of the disease; but we are not informed of what is taught by most authorities,—that in the beginning there is enlargement of the liver, sometimes to a very considerable extent.

No reference is made to *ballottement* in the rules which are given for the diagnosis of pregnancy. This is a most valuable aid to diagnosis in the early months of pregnancy, and may certainly be considered a means of physical examination.

In the lessons on the examination of urine its physical properties are first considered; then the apparatus employed, and some of the tests for albumen, sugar, etc., are described. Directions for the quantitative analysis of the urine are given, and one lesson is occupied with the microscopical appearances of urinary sediments and their clinical significance.

The last two lessons are on the "mechanical aids to diagnosis." Descriptions and illustrations are given of the various instruments employed, as well as instruction in their use.

The desire for brevity in the composition of this work has in some instances caused obscurity, and there are frequent evidences of careless writing. The subjects are freely illustrated with wood-cuts, some of which, however, are poorly executed. Several of the cuts in the lessons on the heart and lungs are copied from Da Costa's Medical Diagnosis, and others which are not acknowledged as coming from this source bear a striking resemblance to some in the same work.

On the whole, we can cordially recommend the book to the profession at large, but it is especially adapted to the requirements of students and recent graduates.

MEDICAL ESSAYS. Compiled from Reports to the Bureau of Medicine and Surgery, by Medical Officers of the Navy. Published by Order of the Navy Department.

It has often been a matter of surprise to us that the medical officers of the navy, many of whom are gentlemen of superior abilities, having ample opportunities of observing and recording interesting cases, have not contributed more to the medical literature of the country. Visiting and mingling with the various nations of the world, a man of close observation can surely see something either in the way of diseases little known to us, or new methods of treatment, an account of which would be of interest to the medical world.

We hail the book before us as a harbinger of better things. It is made up of a number of reports made by various surgeons to the Bureau of Medicine and Surgery, arranged in book-form by Dr. A. L. Gihon, who himself contributes the *pièce de résistance* in the form of an essay on Naval Hygiene.

The doctor gives us a plain, practical, common-sense view of this very important subject; and although his book is not so large nor does it go so much into detail as the justly celebrated work of Fonssagrives, yet in many respects we like it better, principally because it is better adapted to our own service than is that of the French author.

That this work will meet the consideration it deserves from those in authority, we scarcely dare hope. So apt is the progressive surgeon to be looked upon as an innovator and an overturner of established things, and so powerful in the minds of many officers are those cabalistic words, "usages of the service," that we fear that many of the abuses that now afflict the service will continue to exist until the superior education now given the younger officers of the navy will have the effect of dispelling some of the old Benbow notions that still lurk in the craniums of our old sea-kings.

As the book was written more especially for the instruction of the younger members of the corps just entering the service, it very properly begins with a chapter on the "examination of recruits." This duty, according to the author, is often carelessly performed, very much to the detriment of the service; especially was this the case during the late war. The rules which he lays down will make the examination searching and thorough. The only fault we have to find (if it be a fault) is, that any man who can meet all the requirements can make more money by sitting as a model to a sculptor than in serving his country for eighteen dollars a month: however, in these piping times of peace, we can afford to be more strict, as but few men are wanted and plenty offer.

The receiving-ship, navy-yards, humidity, ventilation, light, clothing, cleanliness, food, water, sleep, exercise, climate, moral influences, and the sick-bay, are all ably discussed, and many excellent suggestions made and abuses exposed. As an instance of some of the things that want reforming, we give one example. The crew of a man-of-war are served all their meals inside of eight hours, viz., from 8 A.M. to 4 P.M., and fast sixteen hours, although their most arduous duties are often performed within that period. This is all wrong, and could easily be remedied if those tiresome sayings, "usages of the service," and "they do it in the English service, you know!" could only be lost sight of.

We regret that want of space prevents us from going more fully into the merits of this excellent work. It will commend itself to the good sense of every enlightened medical officer, and if those in authority will only act upon some of the suggestions made by the doctor, poor Jack will have good cause to be thankful to him. In speaking as we have done, we do not mean to reflect upon navy officers as a body. A large majority of them are men of sense and good judgment, and are always ready to act upon a good suggestion coming from a medical officer; but there are a few, we regret to say, who, puffed up with authority, are a little too tenacious of their privileges, and fearful of their jurisdiction being encroached upon,—men who would fain run the sick-bay as well as the ship.

Medical Inspector Shippen contributes a very interesting "report upon certain English hospitals," and a "Schedule of Examinations at Netley." We believe this article was published for the purpose of calling the attention of the authorities to the necessity of establishing an institution similar to the Netley Hospital School for the purpose of training candidates who have passed their examination before the army and navy boards, previous to entering upon active service. None but the initiated know how important this is; but want of space forbids us enlarging upon this subject.

The rest of the book is made up of a Report of a Resection of Head of Femur, by Surgeon W. E. Taylor;

two reports on Yellow Fever, by Surgeons Bloodgood and Pilcher; a report on the sanitary condition of the Asiatic squadron, by Medical Inspector R. T. Maccoun; an interesting case of Diabetes, by Medical Director J. McClelland; a case of erosion of the entire penis, by Dr. W. S. W. Ruschenberger; and a report upon the charitable institutions, hospitals, and peculiar diseases of Peru; all of which are of considerable interest, and go to show that the medical officers of the navy are waking up to the necessity of showing their brethren on shore that they are what they are,—worthy representatives of a noble profession.

THE TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, for 1870. Albany, 1871. Ditto for 1871.

These two handsome volumes, comprising the proceedings of the largest and perhaps most prosperous of our State medical societies, have reached us so nearly together that we must include both of them in a single notice.

The Transactions for 1870 have for their frontispiece an excellent likeness of the late Prof. Alden March. Farther on in the volume we note an elaborate paper on the Endoscope, illustrated with chromo-lithographs, by Dr. Robert Newman; a short notice of the value of chlorate of potassa in serous effusions, by Dr. Samuel Peters; an instructive article on the luxation of the ulna accompanying Colles' fracture, by Prof. E. M. Moore, of Rochester; and an account of twelve cases of trichiniasis, by Dr. Thomas M. Flandrau, of Oneida County; besides several other valuable monographs, which want of space alone prevents us from referring to more in detail.

The volume for 1871 has its place of honor most worthily occupied by the able address of the president, Dr. S. O. Vanderpoel, upon Pathological Anatomy, the necessity of its study, and its influence upon medicine as a positive science. This discourse is succeeded by several interesting papers of minor importance, among which the prize essay of Dr. Durant, of New York, is remarkable for the absolute ignorance it displays in regard to the observations of Niemeyer, Waldenberg, and Cohnheim respecting the origin of tubercle and its relation to cheesy deposit; and following these we have a dissertation on insanity and its dependence on physical disease, by Dr. John P. Gray, Superintendent of the State Lunatic Asylum at Utica, whose wide opportunities for investigation here bear fruit in a deeply thoughtful paper, in full unison with the progressive spirit of our age.

Another prize essay, by Dr. S. Fleet Speir, describes that important surgical appliance, the artery-constrictor, and is illustrated by eight plates. Dr. St. John Roosa furnishes an instructive statistical report on nearly five hundred cases of diseases of the ear; Prof. L. A. Sayre, an account of his ingenious vertebrated catheter; and Dr. T. Addis Emmet and Dr. N. Bozeman, articles respectively upon some gynæcological subjects in connection with which their names are well known to medical men.

Altogether, the Transactions for 1870 and 1871 contain a mass of new facts and carefully-drawn conclusions, which forms a real and substantial addition to our science, and as such afford the profession a contribution of printed knowledge whereof any medical society may well be proud.

COLD BATHS IN RHEUMATIC FEVER.—Dr. Sydney Ringer, in *The Practitioner*, reports the case of a girl æt. 22, in whom rheumatic fever was treated by means of cold baths, and by the application of large-sized ice-bags, with evident benefit and an entirely successful result.

GLEANINGS FROM OUR EXCHANGES.

TRANSPOSITION OF THE VISCERA (*Irish Hospital Gazette*, March 15).—Dr. Nixon recently exhibited to the Pathological Society of Dublin a very remarkable instance of complete transposition of the viscera, taken from the body of a boy, aged about 15 years, who died of recent double pleurisy with effusion, half an hour after admission into the Mater Misericordiæ Hospital on March 7. No history of the case was obtained. The following, among other alterations in the normal anatomy of the several parts, were observed. The heart was directed to the right side; the arch of the aorta passed from left to right, crossing over the root of the right lung; thence the vessel continued its course through the posterior mediastinum, lying to the right side of the œsophagus. The arteria innominata passed upwards and forwards to the left sterno-clavicular articulation, where it divided into the left carotid and left subclavian arteries. The superior vena cava passed in front of the root of the left lung. The left lung had three lobes; the right but two. The right pneumogastric nerve passed over the arch of the aorta, giving off the recurrent laryngeal, which ascended in the groove between the trachea and the larynx. The left pneumogastric supplied the posterior surface of the stomach; the right, the anterior. The liver occupied the left hypochondriac region, its greater lobe being on the left side. The œsophagus passed downwards to the right side, and the cardiac extremity of the stomach and the spleen occupied the right hypochondrium. The head of the pancreas, the cæcum, and the sigmoid flexure of the colon, etc., occupied exactly opposite positions to those which they normally do, and the vessels and nerves of the abdominal cavity were also misplaced.

HYSTERICAL ISCHURIA.—M. Charcot, in his opening lecture at La Salpêtrière (*Ann. et Bul. de la Société de Gand*, July, 1872), gives an account of an extraordinary case of suppression of urine. A young woman, subject to various manifestations of hysteria, and bedridden, began in the month of April, 1871, to experience a remarkable diminution of the urinary secretion. Careful watching placed the reality of the symptoms beyond a doubt. The woman experienced daily attacks of vomiting, and in the fluid thrown up a considerable quantity of urea was found. At the end of several months, the ischuria gave way to a slight polyuria, at which time all vomiting ceased. This was followed in 1872 by another period of diminution of the urinary secretion, this time without suppression, the vomited matter being less abundant than before.

The blood was found, upon examination, to contain no more than the usual amount of urea, so that it must be admitted that the production of this constituent was much below the normal amount.

M. Charcot proceeds to show at length that in the present instance the retention of urine was not dependent on a spasm of the ureter, for where the canal of the ureter is obstructed, either by means of a ligature or by the presence of a calculus, the urine, while it is secreted less abundantly, becomes very weak, which was not the case with this woman: so that the cause of the ischuria must have had its seat in the kidneys.

This case will serve to demonstrate that hysterical ischuria has an actual existence, a fact which has been very generally doubted, so many spurious cases of this affection have from time to time made their appearance. It is not unreasonable, therefore, to regard the hysterical vomiting, which takes place when ischuria is present, as a supplementary process to the functions of the kidneys.

Wound of Spinal Column and Cord (*Irish Hospital Gazette*, March 15).—At a recent meeting of the Surgical Society of Ireland, Mr. H. G. Croly detailed the history of the case of a boy, aged eight years, who, while playing in bed with a steel rib of an umbrella, fell on to the floor, one of the ends of the rib being in his mouth at the time. The rib went deeply into the back of the pharynx, and was pulled out by the child himself. He vomited and bled from his mouth and nose. That night he raved, and his mother stated that he had double vision. He was admitted into hospital on the 12th of February, three days after the accident. There was then a punctured wound visible at the back of the pharynx, on a level with the lower border of the velum; the boy tottered on his limbs; he had convergent strabismus, knit brow, was intolerant of light, and had marked febrile disturbance, his temperature being 102.5°. He had also difficulty of swallowing; he whistled, screeched, and threw back his head, and held his neck very stiff. From these symptoms, Mr. Croly diagnosed that the umbrella-rib had penetrated the spinal cord. His head was shaved and ice applied, and he was leeched at each side of the spine; calomel and James's powder were also administered. On the 14th of February his temperature fell to 98°, and the boy has now quite recovered. Mr. Croly had ascertained on the dead subject that an instrument resembling an umbrella-rib, passed directly backward in a position corresponding to the wound of the pharynx in this case, penetrated the spinal column between the first and second vertebræ. Mr. Croly was not aware of any similar injury having been recorded.

Syphilitic Boulimia and Polydipsia (*Archiv für Dermatologie und Syphilis*, October, 1872; from the *Gazette des Hôpitaux*).—Fournier states that within the last few years he has observed about fifty cases of boulimia and polydipsia due to syphilis. In the majority of cases the condition came on with the first constitutional symptoms of syphilis. It was noted to be of much more frequent occurrence in women than in men, and to have existed particularly among individuals of nervous and irritable temperament. It generally occurred in connection with other nervous symptoms, such as headache, drowsiness, neuralgia, analgesia, etc. The boulimia came on suddenly, often in the course of a night, and the patients were noticed to eat twice their regular amount of food without satisfying hunger. Unquenchable thirst was also generally present at the same time; this symptom, indeed, rarely existing without the boulimia. This singular condition, as a rule, remained but for a short period, varying from a few days to as many weeks, though in one or two cases it lasted, with remissions and exacerbations, for months. When we have boulimia it is always a sign of a severe syphilis, and calls for energetic treatment. Without expressing positive views, Fournier is inclined to regard these phenomena as neuroses.

Effect of Cold on Frogs (*British Med. Jour.*, February 22).—Dr. Horvath, of Kiew, has investigated the question, to which various answers have been given, whether frogs can be restored to life after having been frozen. He finds that a temperature of 23° Fahr. kills the striated muscular fibre, so that when thawed it does not contract under either a mechanical or an electrical stimulus; and hence he infers that, in the cases where revival is said to have taken place after subjection to a temperature of 5° Fahr. (Von Humboldt), or 14° to 19.5° Fahr. (Kühne), the temperature of the muscles was not reduced to the extent supposed. The heart of the frog, freshly removed and frozen hard, contracted rhythmically for some time after being thawed. The iris, which in rabbits is always dilated when a certain amount of cold is reached, in frogs undergoes contraction during the cooling process, and becomes dilated again under warmth. The contraction, sometimes to the size of a pin's head, and the succeeding dilatation, may be readily observed in the same animal under alternate applications of cold and heat. Dr. Horvath agrees with Pouchet that the blood-corpuscles are destroyed by freezing; but he does not think that they exert any poisonous influence when thus spoiled.

Treatment of Typhoid Fever.—*The Practitioner* for February quotes from the *Journal de Médecine* the following as the treatment of typhoid fever adopted by M. Péter at La Charité. Every other day he gives a glass of Seidlitz-water, and morning and evening an emollient injection. The injection he considers to be useful in removing putrid matters. The glass of aperient fluid, without exhausting the patient like a daily purge, also keeps the intestinal canal clear from disintegrated matter. He uses the sulphate of quinine in quantities amounting to from seven to fifteen grains per diem as a febrifuge, increasing the dose in proportion to the intensity of the attack. He places great reliance on alcoholic stimulants, prescribing every day four or five ounces of quinine wine, which is made into a lemonade so as to make from two to three pints of fluid, by which means the vegetable acids are freely and easily administered. These, he thinks, remove the crusts of the tongue, and the symptoms produced by putridity are relieved. He uses sponging with vinegar, instead of baths or cold affusion, once daily.

Phonometric Examination of the Chest and Abdomen (*British Medical Journal*, March 8).—Dr. Guttmann has investigated the merits of a method of physical examination recommended some months ago by Dr. Baas. It consists simply in applying an ordinary tuning-fork to the chest or abdomen, and noticing the modifications of the tone produced by the part struck. The application may be made either directly or through a plessimeter; the latter, of course, being the more pleasant to the patient. The general result of Dr. Guttmann's observations is, that the use of the tuning-fork is inferior to ordinary percussion in cases of chest-disease; while, in regard to the abdomen, the only morbid conditions which it indicates are ascites, tumors, etc., which can quite easily be made out by manual palpation. The recommendation of Dr. Baas is, we believe, however, not original. The same principle was advocated, we think, in a London contemporary a few years ago.

Cæsarean Section on the Dead Body (*British Medical Journal*, March 8).—A case of post-mortem Cæsarean section occurred in the Vienna General Hospital last month. A woman, aged 36, was admitted on February 6, in an advanced stage of pulmonary consumption, she being at the time seven months advanced in pregnancy. She died on the 12th; and the Cæsarean section was at once performed by Dr. Blumenfeld, in the presence of Dr. Standthartner, under whose care the patient had been. The operation was commenced seven minutes after the death of the mother, and lasted scarcely three minutes; a living child, about seven months old, was removed, and died in three hours and a quarter.

Monstrous Birth (*British Medical Journal*, March 8).—A case of monstrous birth is reported as having recently occurred at La Olmeda de la Cuesta, in the province of Cuenca in Spain. There were two heads, a single trunk, and four legs. One of the heads was still-born,—apparently from injury received during the labor; the other lived two hours. The preparation is to be deposited in the Anatomical Museum in Madrid.

Ergot in Phthisical Hæmoptysis.—Dr. Anstie, in *The Practitioner* for February, 1873, details some cases in which the fluid extract of ergot, in forty-minim doses, produced a marked effect in diminishing the amount of blood brought up by patients laboring under phthisis, in various stages.

In his paper, which is to be continued in another number, he proposes to compare the benefits obtained from ergot with those from gallic acid, acetate of lead, digitalis, turpentine, and alum.

At a recent meeting of the London Pathological Society, great interest was excited by specimens of new hæmatozoa from the human blood, which had been sent by Dr. Lewis of the Indian Medical Service and Dr. Lamprey of Hong-Kong, through Dr. Parkes of Netley. A long and interesting discussion ensued, in which Dr. Cobbold, Dr. Bastian, Dr. John Harley, and others took part.

MISCELLANY.

Polyclinical School at Pesth.—The *Wiener Med. Presse* of February 2 quotes a letter dated Pesth, January 29, asserting on good authority that a "Poliklinik" will be put in operation in that city in March of this year. "The fact," the writer goes on to say, "is not in itself new, but those concerned in the matter have kept it so secret that to this day, even in medical circles, there is scarcely any one who knows of it. A brief history of the Poliklinik is as follows: As early as the end of year before last, shortly after the erection of the Poliklinik in Vienna, some of the teachers in the Medical Faculty here decided to have one like it, and were strengthened in their plan by seeing the rapid strides made by the Vienna school. On making application to the Minister of the Interior for permission, they were told that not only was there no objection to the establishment of the institution, but that he (the minister) would hold himself ready to aid the plan by all the means at his command. The city authorities favored it also. Arrangements were now made by which Dr. Faludi, the physician of a hospital where about 2000 patients were treated yearly, consented to merge his institution in the Poliklinik, and to become the lecturer on children's diseases in the latter." The other teachers will be Gebhardt, Kétli, and Stiller for internal diseases; Schwimmer for dermatology; Böke, otiatrics; Siklóssy, ophthalmology; Löri, laryngoscopy; Kesmarszky and Hasenfeld, gynæcology; and Verebélyi, surgery.

Singular Case.—The following account comes from the secular papers: A man giving his name as Theobald Fahre, a native of Kehl, in Baden, was found recently in a deserted negro cabin near Augusta, Ga., with his throat cut from ear to ear, and both the œsophagus and trachea completely severed. As nearly as could be ascertained, he had lain there for six days in that condition, without nourishment of any kind. He was carried to the city hospital at Augusta, when the terrible wound was sewed up, and he is now recovering. Fahre, in accounting for the wound which he bears, was somewhat incoherent and unsatisfactory in fixing the responsibility for the deed. On one occasion he said that while travelling along the road at night he was suddenly attacked by two men, knocked down and his throat cut, as previously described, and that he was unable to tell whether they were white or black men. On another occasion, he said that while travelling the road in daylight he was ordered to halt by a white man. Not obeying the order, he says that the man rushed upon him, and cut his throat, leaving him lying in the road.

Under existing circumstances, it would seem to be altogether legitimate to infer that the sufferer, in a moment of temporary mental aberration, probably caused by a lack of knowledge of his whereabouts, had himself inflicted the wound in an attempt to commit suicide.

False Teeth.—According to the *British Medical Journal*, these caused the death of Cuvier, and were a source of discomfiture to Lord Brougham.

Cuvier, impatient at the interruptions of that perpetual interrupter, M. Glais-Bizoin, in the National Assembly, rose so impatiently to answer him, that he jerked his teeth out on the floor, and, stooping not less precipitately to pick them up, fell head-foremost, and struck his head against the floor so heavily as to give rise to the illness which proved fatal to him. M. Glais-Bizoin, then a very young man, promised himself to abstain from his fatal habit of incessantly interrupting; but he was incorrigible.

Lord Brougham, in the course of the proceedings of a great meeting of the Social Science Association, of which he was president, was stopped in the middle of a speech by his teeth falling out. After groping on the floor, and on presently resuming his speech, he made the best of the incident by observing, "Our teeth are sources of trouble from infancy to old age."

Obstetrical Museum.—The Philadelphia Obstetrical Society has issued a circular announcing its intention to establish a museum for the collection of deformed and distorted pelves, and for the preservation of obstetrical instruments possessing historical value or illustrating new methods of treatment. Casts or photographs are solicited of such specimens as cannot be sent; and in special cases the Society will offer a pecuniary recompense, if desired.

Space has, we believe, been obtained in the Museum of the College of Physicians for this collection. Dr. J. V. Ingham, Secretary of the Society, will receive specimens, and will furnish any further information required.

Telegraphic Connections.—Arrangements have been made by which the Fire Alarm and Police Telegraph of Philadelphia is connected with the Pennsylvania Hospital and with the Episcopal Hospital by direct wires,—so that on the occurrence of accidents the authorities of those institutions may be at once notified. There will also be less delay than heretofore in summoning members of the visiting staffs when their services are needed.

We find the following in a daily paper: "A valuable present of Peruvian skulls has lately been received by the British Anthropological Institute from Consul Hutchinson, of Callao. This highly instructive series consists of one hundred and fifty specimens dug out—not gathered from the surface—of the old aboriginal burying-grounds of Pasamayo and of Ancon, twenty and thirty miles north, and from Corso del Oro, about one hundred miles south, of Callao. Twenty-four of these were taken by the consul himself from the Huancas of Ancon, and are probably those of Chinchas or perhaps Ayonaras."

The problem of the maintenance of Continental population is editorially discussed in the *Medical Times and Gazette* (February 8), under the heading "Infant Deficit Abroad." The writer attributes much of the infant mortality to the wide-spread repugnance of mothers to nursing their children, out of which grow those evils of baby-farming and premature weaning which make this "the era of nursing-bottles and artificial food," and remarks that a flippant observer would be justified in "suggesting that formerly children had their milk on draught, but now they have it in bottle."

Medical Remuneration.—The Scotch have a proverb that

> "You should take the fee
> When the tear's in the e'e."

It would be well for us if we could always act on this distich. With many persons the benefits which they receive from their medical attendants are forgotten as soon as rendered. The doctor is a very different person in the eye of his patient when he comes to relieve pain and suffering and when his bill is presented for payment after an interval of months, or it may be in some instances years.

The *Druggists' Circular* for February says, "A physician should always date all his prescriptions. The date should be written first. He is a careless man who omits it, and one to whom we should not care to intrust our life. If the druggist chooses to stamp the prescription, when he has dispensed it, with his name and the date, there can be no objection. On the contrary, it is better that he do so."

European and East Indian women are now, according to the *British Medical Journal*, receiving regular instruction in midwifery and nursing. At the Madras Medical College, diplomas are granted after the required course of study and the passing of satisfactory examination by the candidates.

On January 2, a new European hospital was opened in Kioto, Japan, under the direction of Dr. Junker, who for some time was physician to the Samaritan Hospital, and who directed the English Red Cross Society Hospital at Saarbrück during the Franco-German war.

The largest number of deaths from scarlet fever in England from 1866 to 1870 was in 1870, when 32,543 died.

Population of Germany.—Including Alsace and Lorraine, the subjects of the Kaiser number, according to the census of December, 1871, 41,058,000. The females are in excess of the males by 768,000.

A census of the horses liable to be taken for military service is soon to be taken in France. The work is to be placed in the hands of a mixed commission of civilians and army officers.

Herr Ritter von Mauthner has devoted the sum of 260,000 florins to the establishment of a hospital for children in Vienna.

Dr. J. C. Nott, of Mobile, died in that city on the 31st ult., on his sixty-ninth birthday.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending March 29, 1873, were 323; 172 adults, and 151 minors. 8 were of bodies brought from the country; making the mortality of the city 315. Among the assigned causes of death were:

Consumption of the Lungs	52
Other Diseases of the Respiratory Organs	55
Diseases of the Circulatory Apparatus	19
Diseases of the Brain and Nervous System	44
Diseases of the Digestive Apparatus	19
Zymotic Diseases (Scarlet Fever 6, Smallpox 3)	23
Typhoid Fever	7
Diseases of the Urinary Organs	15
Casualties	13
Cancer	5
Rupture of Uterus	1
Debility (including "Inanition" and "Marasmus")	30
Still-born	13
Old Age	9

(The interments reported for the week ending March 30, 1872, were 449.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

	Thermometer. Max.	Min.	Barometer. (2 P.M.)
Mar. 23	55.0°	31.0°	29.93 in.
" 24	36.5	35.5	30.22 in. (Rain and Sleet.)
" 25	35.0	30.0	30.14 in. " " "
" 26	40.0	33.5	29.62 in. " " "
" 27	38.0	27.0	30.28 in.
" 28	51.0	32.0	30.35 in.
" 29	54.5	49.0	29.37 in. (Rain.)

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM MARCH 25, 1873, TO MARCH 31, 1873, INCLUSIVE.

Styer, Charles, Assistant-Surgeon.—Leave of absence extended to include May 10, 1873. S. O. 66, A. G. O., March 28, 1873.

Ewen, C., Assistant-Surgeon.—Assigned to duty at Little Rock, Ark. S. O. 47, Department of the Gulf, March 24, 1873.

Winne, Charles K., Assistant-Surgeon.—Leave of absence granted for six months from April 15, 1873, and his resignation accepted by the President, to take effect October 15, 1873. S. O. 55, A. G. O., March 15, 1873.

SATURDAY, APRIL 12, 1873.

ORIGINAL LECTURES.

LECTURES
ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. Bertolet, M.D.

(Continued from page 419.)

Lecture VII.

INJURIES TO THE LARYNX AND TRACHEA.

Burns and Scalds.—Burns and scalds of the larynx and adjacent structures of the throat are met with, usually as the result of accident, but sometimes as the effect of design. They are often fatal. Acids or alkaline caustic fluids are sometimes swallowed, a liniment being mistaken for a mixture, or a glass containing acid for a drink of spirits. Children frequently suffer with scalds from attempting to drink boiling water. Another frequent cause is the swallowing of caustic substances with suicidal intent. The inhalation of flame, hot steam, or heated air, will produce burns in the air-passages. The larynx is less likely to be implicated when the caustic liquid has been swallowed involuntarily than when the drink has been taken designedly, and the epiglottis not surprised at its post, as it were; the effects are produced chiefly in the pharynx and œsophagus, and sometimes the stomach, the act of deglutition being fully accomplished in spite of the pain and spasm. Boiling water, not being taken designedly, is rarely if ever swallowed, spasmodic regurgitation taking place before the act of deglutition is completed.

There is usually very little trouble about the diagnosis of a burn or scald of the larynx, except in instances where the nature of the accident is concealed by the determined suicide. The severe pain and distress in the parts, the great acceleration of the pulse, and other evidences of vascular excitement, the dysphagia, the dyspnœa with its usually attendant stridulous inspiration, the pallor of the countenance, the coldness of the extremities, the nervous excitement, and the history of the case, are sufficient for the purpose.

If the case is seen early, and the parts can be subjected to inspection, there is generally noticed a tumefaction and destruction of the mucous and sub-mucous tissues of the palate, the pharynx, and larynx, which are of a white color, often from detachment of the epithelial layer, in a membranous form, or from prompt plastic exudation. Acute laryngitis supervenes rapidly, and is likely to be attended with œdema, and its risk of death by asphyxia. In addition to this, there is usually a great amount of nervous shock, which in itself constitutes a serious element of danger.

As a rule, only the upper portion of the larynx becomes implicated,—that is, the region above the glottis,—all the lower portions of the larynx having often been found normal after death. In other instances, however, the mucous membrane of the trachea and bronchi has been found congested and swollen, with sometimes, also, inflammation of the lungs. In some instances a plastic exudation, resembling in its character the plastic exudation of croup, has been found in the trachea and in the bronchi.

The local treatment of acute laryngitis from burns and scalds consists in applying cold compresses or ice-bags about the neck, and keeping bits of ice in the mouth. The inhalation of the spray of acetate of lead, or its frequent projection on the parts, would seem applicable, in view of its beneficial effects in scalds and burns of the cutaneous surface. The use of mucilaginous drinks, where practicable, is very soothing. The external application of leeches about the throat, and, in some cases, of blisters following, has also proved efficacious.

The operation of tracheotomy or of laryngotomy is usually indicated, however, and should not be postponed too long. Inasmuch as the inflammation of the larynx rarely extends below the vocal cords, owing to the spasmodic closure of the glottis at the moment of injury, there is no objection, as a rule, to performing laryngotomy through the crico-thyroid membrane, especially in the adult whose parts will admit the insertion of a tube large enough for respiratory purposes. The operation, though by no means certain to save life in adults, offers more hope of success than it does in children.

Burns and scalds of the air-passages may result in stenosis of the larynx or trachea, which is usually attended with a persistent chronic laryngitis.

WOUNDS OF THE LARYNX AND TRACHEA.

Wounds of the larynx and trachea—gunshot, contused, and incised—are encountered in both military and civil practice. They are accidental or designed; most frequently occur in suicides, but sometimes are inflicted by murderers. Brierre de Boismont found that of four thousand five hundred and ninety-five suicides, one hundred and twenty-one had cut their throats. Suicidal attempts of this nature fail in producing death more frequently than they succeed; partly from ignorance of the locality of the great vessels, and partly from belief that a wound of the windpipe is necessarily fatal. The head being usually thrown backward, the large vessels are pressed out of the reach of the knife, and the air-passage alone wounded. Malgaigne states that the larynx is found severed in young suicides only,—old ones wounding the trachea more frequently; and he puts the query whether this is not due to the circumstance that an old person cannot throw his head so far back as a young one. When the suicide understands the anatomy of the parts, or makes a sweeping cut, the great vessels of the neck are severed, and death from hemorrhage follows quickly.

Incised wounds above the hyoid bone, though

they open into the mouth and pharynx, and sometimes wound the root of the tongue to such an extent as to produce serious hemorrhage, do not implicate the larynx.

If the wound is made below the hyoid bone, then the pharynx is entered, and the upper portion of the cavity of the larynx opened or exposed; the epiglottis being sometimes wounded, and even the arytænoid cartilages severed. In some instances the hyoid bone and the tongue are severed from the larynx. When the epiglottis or an arytænoid cartilage has been partially severed, there is risk of impaction of the fragment in the glottis, an occurrence which may take place soon after the injury, or not until some hours or days afterwards. Cases are on record of fatal results from both of these complications. It is, therefore, very generally deemed advisable to remove with the knife or scissors any movable fragment of epiglottis, arytænoid cartilage, or other structure, the retention of which might give rise to such an accident.

When the knife has been applied several times to the throat, the cartilages are sometimes divided into several fragments, and great care must be taken that no loose piece of cartilage be allowed to remain, lest it become detached and obstruct the glottis. In cases of multiple wounds of this kind the immediate danger from entrance of blood into the air-passages is much greater than where there has been but a single cut. This danger from hemorrhage, too, is much greater in wounds of the trachea than in wounds of the larynx, because the thyroid gland is almost always wounded also.

The diagnosis of a wound of the larynx or trachea is sufficiently simple, even before thorough exploration of the nature of the injury, by the passage of air through the wound, and the presence of frothy blood at its surface. If the patient is not suffocated by the blood which has flowed into the air-passages, it is expectorated through the wound, and partly through the mouth. Syncope is a usual result of the hemorrhage. Liston, Rush, and others caution the practitioner against being deceived by the arrest of hemorrhage on the occurrence of syncope; for, if ignorant, he will close the wound by suture, and prevent the outward escape of blood in the subsequent hemorrhage which is almost sure to occur as soon as reaction is established; and then the patient may be drowned by his own blood, or be asphyxiated by the formation of a clot. Cases made fatal in this way by too assiduous attention are on record; and Liston mentions an instance in which his own assistant, despite the principles that he had inculcated over and over again, came near losing a patient in this way, whom Liston saved by cutting the sutures and removing the clot which impeded respiration.

It is, therefore, an important point in the management of cut-throat cases, that the parts should not be united by suture until it is certain that all danger from hemorrhage is over. Ligation of the bleeding vessels does not always secure immunity from later and recurrent hemorrhage. If the hemorrhage is excessive, and unrestrainable by styptics and the ligation of vessels within reach, perhaps the best treatment would consist in tying the carotid, a measure which has frequently been carried out with satisfactory results. If the wound be large, it is allowable to unite its outer portions, leaving the central portion open; and if there is any disposition towards bagging of a horizontal wound, the pockets at its lower lip should be divided vertically, so as to prevent the burrowing of pus; for these wounds never unite by first intention, and more or less extensive suppuration is to be expected. When all danger of hemorrhage is over, the parts on either side of the opening in the air-tube can be brought together with adhesive strips and sutures, if necessary,—ample room being left for drainage; but no suture should be taken through the cartilage, or even its perichondrium, inasmuch as sutures are not well borne in these situations, and either cut themselves out or produce so much local irritation as to necessitate their removal. After the parts are in apposition, the head is to be slightly flexed, and retained in its position by light bandaging. The parts should be covered with light gauze or something of the sort, to modify the temperature of the inspired air. The patient's apartment should be warm, and the air moist.

Inflammatory reaction is to be treated on general principles. If from any cause asphyxia be threatened, the trachea should be opened below the seat of injury, and a canula introduced.

If there is no wound of the pharynx or œsophagus, food can usually be taken by the mouth, even if the epiglottis has been wounded; if these structures have been injured, liquid nourishment can be given by a stomach-tube; and, under extreme circumstances, by the rectum. Medicine, if required, can be given by enema or by hypodermic injection. Care must be taken to catch the expelled secretions in a soft sponge or mop, and to cleanse the wound frequently. Despite the utmost attention, however, more or less bronchitis will ensue, attended with copious secretion. Opium may be employed to restrain the secretion and allay cough; but care must be taken not to push it far enough to obtund the sensibility of the larynx and trachea, and thus favor the passage of fluids into the larynx. These wounds heal slowly. They often leave a fistulous passage, requiring the use of caustics, or even calling for plastic operations. Sometimes stenosis ensues, necessitating the permanent use of a tracheotomy-tube.

Gunshot wounds of the larynx and trachea occur in the same localities as incised wounds. The primary hemorrhage is less, but the secondary hemorrhage may be profuse, especially in wounds of the trachea, on account of injury to the thyroid gland. The main source of danger is from the inflammatory swelling of the superjacent soft parts. The resulting bronchitis is apt to be very severe, with profuse muco-purulent secretion.

Severe gunshot wounds are liable to be complicated with contusion or laceration of important nerves, and there may be paralysis or spasm of the intrinsic laryngeal muscles, interfering with respiration, independently of œdema or inflammatory

products; and this condition of things may demand tracheotomy, in order to render respiration independent of the patency of the larynx.

FRACTURES OF THE LARYNX AND TRACHEA.

Fractures are the result of mechanical injury. They are simple or multiple. The thyroid and cricoid cartilages are fractured most frequently. The prognosis is always grave, especially when the cricoid cartilage is implicated; possibly because the injury which breaks this strong circular cartilage produces great contusion of the soft parts.

The symptoms of fracture of the larynx are, essentially, spasmodic cough, frothy sanguinolent expectoration, dyspnœa, dysphonia or aphonia, dysphagia, and emphysema in some cases attended with laceration of the mucous membrane. Cartilaginous crepitation is produced on manipulation. It must be borne in mind that the upper horn of the thyroid cartilage is occasionally found disconnected from the body of the cartilage; and sometimes, as in a specimen exhibited by the lecturer, it is entirely absent.

Some fractures terminate fatally at once or in a short time. If the patient survive the immediate injury, tracheotomy ought to be performed to lessen the risk of danger from sudden asphyxia. In many instances the emergency calling for this operation has presented suddenly, and the patient has been lost because there was no one present to perform it. The fragments should be carefully replaced, but no sutures should be taken in them, for the same reasons given in treating of wounds of this region. In fact, the general after-treatment would be very much like that adopted for wounds.

The symptoms of fracture of the trachea are similar, in the main, to those of fracture of the larynx: severe dyspnœa and rapidly extending emphysema. The prognosis is very unfavorable. The treatment is much the same as for fracture of the larynx, including the prompt laying open of the wound, and the insertion of a tracheotomy-tube, or the performance of tracheotomy below the seat of injury.

Rupture of the trachea from the larynx, or of one or more intercartilaginous spaces, occasionally happens under severe mechanical injury, such as pressure, or a kick on the parts. Spontaneous laceration has also been known to occur. The main diagnostic symptoms are dyspnœa and emphysema. Tracheotomy is usually called for. The cases usually terminate fatally.

Contusions of the larynx and trachea sometimes occur as the result of accident or violence. They are usually amenable to rest and emollient applications. Spasm of the glottis may ensue and necessitate the operation of tracheotomy.

FOREIGN BODIES IN THE LARYNX AND TRACHEA.

Foreign bodies almost always gain access to the larynx and trachea from the outside, but sometimes from the inside also. Thus, a detached bronchial gland, a piece of necrosed laryngeal or tracheal cartilage, may become a foreign body to all intents and purposes. Parasitic worms, insects, etc., sometimes crawl into the air-passages; and sometimes matters from the stomach may be vomited into the larynx. The foreign body remains loose, or may lodge in some portion of the passage. The symptoms of the presence of a foreign body in the air-tube are: cough, pain, spasm, and dyspnœa; and the diagnosis is usually dependent upon the suddenness of the onset. Auscultation of the larynx, trachea, or lungs, sometimes affords the evidences of obstruction; and occasionally the foreign body, especially when lodged, can be seen in the laryngoscopic image. Impaction of a foreign body in the pharynx or œsophagus may give rise to all the subjective symptoms of a foreign body in the larynx or trachea. Exploration with the finger and with the stomach-tube will soon set this point at rest.

Spontaneous expulsion of a foreign body often takes place, but it is hardly safe practice to trust to this result, in view of the accidents which may occur if it is retained in the air-passages, on the one hand, or caught in the glottis, on the other.

If the substance inhaled has been a soft vegetable material capable of absorbing moisture, its prompt removal should be effected. In fact, it is hardly doubtful that prompt removal is the best practice in all cases of this kind; for the life of an individual with a foreign body in the air-passages cannot be said to be safe. If the foreign body can be seen with the laryngoscope, it may, in favorable instances, be removed with the laryngeal forceps, or hook; but only, as a rule, when situated above the glottis.

Under most circumstances, an opening should be made in the trachea, large enough to admit of the free play of instruments for extraction. The opening should be at least an inch and a quarter in length in the adult, and an inch in the child. If the foreign body is in the larynx, laryngotomy may do; but sometimes it is necessary to divide the wings of the thyroid cartilage to a certain extent. Sometimes the foreign body is expelled by cough as soon as the air-passage is opened, and it may escape either by the mouth or by the wound. Sometimes the foreign body presents at the wound and is seized in the forceps. If it does not make its appearance at the point of incision, it is customary to slap the patient on the chest and back while the face is turned downwards, and thus to dislodge the body and favor its expulsion.

If these efforts fail, delicate forceps or blunt hooks are carefully passed into the tube to search for the body and draw it out. They should always be warmed before they are introduced. Care must be taken not to impact the body in the manipulation. These efforts must not be continued many minutes. If they fail, the wound is to be kept open by ligatures in its edges, fastened together at the back of the neck, or by hooks or wires similarly secured. The parts are covered with a light compress, to exclude the entrance of cold air. Then renewed efforts at extraction are made in a few hours, or on the next day. The wound should be kept patulous until the

foreign body is expelled. If this does not take place soon, a tracheotomy-tube can be worn, and withdrawn when the body shows signs of dislodgment. For the first few days of keeping such a wound open, the patient should be confined in a warm room with some moisture in the atmosphere.

ORIGINAL COMMUNICATIONS.

STRABISMUS CONVERGENS:

WITH SPECIAL REFERENCE TO ITS ÆTIOLOGY.

A Paper read before the Northern Medical Association of Philadelphia.

BY S. D. RISLEY, M.D.

THE term "strabismus" was formerly applied to all deviations of the optic axis from parallelism. In later years, however, since the paralyses of the ocular muscles have been more carefully studied, and with a better understanding of the causes of squint, all deviations depending upon paralysis or muscular insufficiency from any cause, or mechanical obstructions to the movements of the eyeball, have been excluded, and the term limited to that group of cases *characterized invariably by the fixing of one eye upon the observed object, while the other deviates from its normal direction,—the degree of movement in both being equal and normal.*

Either of the muscles of the eyeball may be the immediate agent in causing the deviation; but the two by far most frequently demanding attention are the rectus internus and rectus externus, and these in point of frequency in the order of their naming. They pull the eye in opposite directions, and the abnormal deviations produced are termed *strabismus convergens*, or where, the internal rectus acting, the eye is carried towards the nose, the cornea being buried more or less deeply at the inner canthus, and *strabismus divergens*,—where, the external rectus acting, the eye is rolled outward, and the cornea buried at the outer canthus. Of these the first occurs more frequently; and it is to this variety of deviation I desire to invite your attention, and more particularly to *its cause* than to its diagnosis or treatment.

In well-marked cases of strabismus there can be no difficulty in recognizing the deformity. The only question which needs any share of our attention is the differentiation of true strabismus from other deviations of the optic axes. The more frequently occurring conditions liable to lead to error in diagnosis are the paralytic affections of the muscles of the orbit, orbital tumors, and certain optical defects giving rise to apparent strabismus. The principle upon which the differential diagnosis is to be made out is contained in the definition already given. In no other affection will the same conditions be met. In paralysis of the external rectus of one side we shall find convergence of the corresponding eye, while the opposite eye fixes the object, but there will not be the same degree of movement in each eye. In orbital tumors we may have convergence, but the movements of the ball will be impeded. Lastly, in cases of apparent convergent squint it will be found that not one but both eyes converge, and that though both eyeballs are deviated inward, nevertheless both eyes are fixed upon the same object. Again, this condition is associated with high degrees of myopia.

The question usually to be decided is between deviation from paralysis of one external rectus and true strabismus. To render the subject more intelligible, suppose a case of convergence of the right eye. The patient observes you steadily with his left. If an opaque card or the hand be placed before the left or fixing eye, the right or deviated eye will move outward, if the case be one of strabismus, in order to fix upon any object at which he may be directed to look, placed directly in front of him, and the left eye will be found to have made an associated movement inward, as the before converging eye moved outward to fix upon the observed object, and to have now become the squinting eye. If the extent of the *primary* deviation be measured, and afterwards the associated movement of the healthy eye, or *secondary* deviation as it is called, they will be found equal. On the other hand, if the case be one of paralysis of the external rectus of the right eye, when the healthy eye is covered the left will make an irregular oscillatory or zigzag movement, brought about by the action of the oblique muscles in the vain attempt to move the eye outward. If the case be one of *partial* paralysis, it will probably move outward to some extent—a line or a line and a half—in the attempt to fix its visual axis upon the object. The sound eye, however, it will be found, has made an associated movement inward of $2\frac{1}{2}'''$ to $3'''$. This greater *secondary* deviation is explained by Soelberg Wells in the following manner. "As the external rectus of the unsound eye is insufficiently innervated, it demands a greater impulse of the will to bring about this diminished movement than if the innervation were normal. But this increased impulse also affects the associated healthy internal rectus of the opposite eye, and is enabled to produce a greater amount of movement in the eye. Hence it is an invariable rule in all cases of paralysis that the secondary deviation considerably exceeds the primary, whereas in the common concomitant squint the two are exactly equal." There will also be a marked difference in the mobility of the eyes in following an object moved rapidly from one half to the other of the field of vision, and in slight cases valuable aid may be afforded by the diplopia consequent upon the want of concord in the optic axes: *e.g.*, when the object is moved over into that part of the field of vision corresponding to the partially paralyzed muscle, the eye, being no longer able to follow the object, becomes fixed at some point, while the other eye follows the object. In this way a convergent squint is produced, and homonomous double images are seen. For it will be seen that the rays of light from the object fall upon the inner portion of the retina, accustomed only to receive rays coming from the outer part of the field of vision: hence the image is from habit projected in that direction.

The operation for the relief of the deformity is

without doubt of comparatively modern origin. Empiricism, however, seems to have led the van of the army of more scientific and worthy investigators by nearly a century. About the middle of the last century a famous charlatan entered Paris, and in conspicuous announcements proclaimed himself oculist to the King of Great Britain, and claimed to have discovered "a mode of restoring squint eyes by a prompt operation, almost without pain, and without the fear of any accident." (Giraldés, by Velpeau.) He passed by means of a needle a silken thread under a fold of the conjunctiva, and with the scissors divided the included tissues. The sound eye was then covered with a plaster, the squinting eye was restored, and by the clamorous crowd it was pronounced "a miracle." (Secat.) He is said to have given as a reason for the operation that "strabismus is caused by an inequality of the muscles of the eye, and in order to cure it one of them must be weakened." After this the operation seems to have been forgotten, until our own Gibson suggested it in this country, and performed the operation in four cases in 1818. But he was subsequently induced, through the influence of Professor Physick, to abandon it. (Smith.) European writers, however, justly claim for Stromeyer the credit of having in 1838 brought the operation into general notice. He himself claimed the operation as something entirely new. At the time of his minute description of his operation he had only performed it on the cadaver. To Dieffenbach belongs the honor of establishing the success of the operation, publishing his first essay in 1839. After these came Phillips, Baumgarten, Velpeau, Guerin, Guthrie, Liston, Elliot, Hall, and others of the continental and British surgeons; and it was done in the United States by Willard Parker, of New York, in 1840, and soon after by Pancoast, and others of this city. The literature of the subject furnishes a sad record, not only for the patients who sought relief at the hands of these eminent surgeons, —for their efforts were far from being uniformly successful,—but also because of the grossly exaggerated accounts of success contained in the published reports of the continental surgeons during the first years after the inauguration of the operation for squint. Others, led by these reports to too sanguine hopes, were not sparing in their denunciations of those who had led them astray. A strong partisan feeling crept into their writings. The crimination on one part, followed by epithets of "ignorance," "incompetency," "tyro," etc., on the other, manifested a spirit strongly at variance with the genius of the profession, and one which always forms a barrier to the progress of truth. I would that thirty years later we were entirely free from the same spirit! But how often the enthusiastic reports of brother practitioners prove but the uncertain light of the *ignis fatuus*, luring others on to naught but disappointed hopes and the criminations of their patients! Truth can never be established save upon the foundation of honest observation. Exaggerated reports of success can only, sooner or later, lead to disclosure and just denunciation; while the truth, even though it be a report of negative results, is a valuable contribution to our science.

In works on general surgery written within the last decade, we find repeated asseverations of personal success, and unmerited censure visited upon less fortunate or perhaps more honest rivals in the operation for strabismus. How little consideration is due these claims to unvarying success the sequel will show. The statements are exaggerated, or the cases have not been watched sufficiently long after the operation. Velpeau, as early as 1840, in estimating the proportion of failures to cures, etc., seems to have grasped the real state of affairs leading to exaggerated reports of success, and to guard against it lays down two important considerations:—1, the careful determination of the nature of the case operated upon; 2, to exhibit the patient cured after three months. He had repeatedly seen cases of vaunted cures return after a short interval with the eye turned outward, after having before squinted inwardly, or who still continued to squint as before. Alluding to these experiences, he says, "These things at Paris have brought odium upon the operation, so that its intrinsic value, after unexampled popularity, begins to be mistrusted."

Ignorant as they were of the ultimate cause of the deviation of the optic axes in a vast majority of cases, it is not surprising that surgeons should have looked to the ocular muscles for the relief of a deformity in the production of which they were obviously the immediate mechanical agents. Stung by their want of success, and by the frequent recurrence of the deviation, they were led to perform extensive dissections of the ocular muscles and their cellular investment. Thinking the return of the squint due to the action of the oblique muscles, or the internal fibres of the superior and inferior recti, *these* were divided, and many times with extensive denudations of the eyeball, but with no better results, —the deformity returning quite as frequently, often the eye squinting in the opposite direction, and the deformity magnified by the extensive denudations. After such wholesale laceration of the muscular attachments, the eye was permitted, in many cases, to bulge forward: hence we find to-day, in many of the books, this condition given as one of the results of the operation for the cure of strabismus. It is not the case, however, after a judiciously performed tenotomy.

Owing to this liability to recurrence, and the imperfect results attained even in the so-called successful cases, many surgeons gave no encouragement to patients applying for relief.

Such was the uncertain estimate placed upon the value of the operation for the cure of strabismus, when in 1858 Professor Donders, of Holland, during his investigations upon asthenopia, discovered its cause in the hypermetropic structure of the eye. Henceforth strabismus was to lose its importance as a distinct affection, and to be regarded as a symptom merely of an ulterior condition.

In the normal eye, rays of light emanating from distant objects—*i.e.*, parallel rays—are, without effort of the accommodation, brought to a focus upon the retina by the refracting system of the eye,

and a clearly-defined inverted image of the object is thrown upon the layer of rods and cones of the retina,—a condition necessary for distinct vision. Regarding the eye as an optical instrument, it resolves itself into a refracting apparatus, the cornea and lens, and a receptive screen, the retina.

It is obvious that, in order to have perfectly-defined images, there must be harmony between the refracting power and the distance at which the screen, or retina, is placed.

Thus, if the eye be regarded as a camera of one inch in length, it must have a refracting power which would be equal to a lens of one inch focal distance, in order that images of distant objects be accurately pictured upon the rods and cones of the retina; or, having a refracting power equal to a lens of one inch focal distance, it is obvious that any variation in the position of the retina, without a change in the refracting apparatus, would lead to imperfectly-defined images upon the retina, and thus to indistinct vision.

It has been demonstrated that there are frequent departures from this harmony, so necessary to perfect vision and comfortable use of the eyes.

Eyes which enjoy this harmony are termed emmetropic. There are two other conditions, however, which have been repeatedly demonstrated,—the one in which the visual axis is too short, the other in which it is abnormally long. In the first, the converging cone of rays is intercepted before reaching the principal focus, and in consequence a circle of diffusion results, instead of the perfectly-defined image. In the second, the rays of light, having reached the focal point, cross over and reach the retina as diverging rays, again giving a circle of diffusion.

The term hypermetropia has been given to the first; the second is the anatomical condition in myopia.

It is the hypermetropic eye with which we have most to do in this paper.

These conditions may be illustrated optically by a schematic eye, consisting of two cylinders, the one moving freely within the other. At the anterior extremity of the outer cylinder is placed a plano-convex lens, with a focal distance equal to the length of the cylinder. Over the posterior end of the contained cylinder is placed a ground-glass screen, upon which is delineated an inverted but accurate image of the distant burning jet of gas. As the relative position of the screen is changed by moving the inner cylinder, either within or without the principal focus of the lens, we get no longer the perfect image, but a circle of diffused light.

Now, what we see here demonstrated in this schematic eye also takes place in the human eye in hypermetropia and myopia. When the ground-glass screen is moved within the principal focus of the lens, the condition is optically hypermetropic. In order to again secure an accurate image, the refractive power and the distance of the screen must be made to harmonize, which may be done by placing an additional lens in front. In the hypermetropic eye, nature has furnished this additional lens through the power of accommodation, by virtue of which the lens becomes more convex, its refracting power being thereby increased.

It is not my purpose in this paper to explain the mechanism of accommodation any further than the mention of the fact that this power of accommodation is resident in the ciliary muscle within the eyeball. The contraction of the fibres of the muscle relaxes the suspensory ligament, and allows the elastic lens to expand, its convexity thus becoming greater, and its refractive power increased.

It follows, from what has been said, that hypermetropic eyes are able, without tension of the accommodation, only to focus rays which enter it more or less convergently. Theoretically, light is reflected from bodies to the eye in a diverging direction; but so long as the rays diverge at any angle no greater than 5′, they are practically parallel, and in investigations upon the dioptrics of the eye are so considered. Rays of light emanating from infinitely distant objects are regarded as parallel, and in the emmetropic eye such rays are without tension of the accommodation focussed upon the retina. With the hypermetropic, however, it is different. As we have seen, the principal focus of the refracting system of his eye is behind the retina, and the refractive power must, therefore, be increased in order to focus parallel rays upon the rods and cones. Now, the amount of accommodation required to accomplish this may be regarded as a deficit with which the hypermetropic individual commences life. With the approximation of objects to the eye, for the maintenance of binocular vision, the axes must converge more and more. At the same time, the rays of light from the object enter the eye more and more divergently, calling for an increase in the accommodation in a direct ratio to the approximation of the object.

Now, together with the increase in the convergence, there is also an increase in the power of accommodation. That this is true may be demonstrated in various ways. If a prism be placed before the eye of a hypermetropic individual (*e.g.*, one who is unable to focus parallel rays with V = $\frac{3}{4}$ for distance (Sn. $\frac{15}{XX}$)), with its base outward, in order to avoid diplopia he squints inward, and the acuity of vision comes up to 1, or Sn. $\frac{15}{XV}$. With the excessive convergence thus induced, he can bring his faculty of accommodation more powerfully into action, and is able thereby to focus parallel rays upon his retina.

When we wish to put our power of accommodation upon the stretch, there is a strong tendency to increased convergence, even in emmetropic eyes; but it is pre-eminently so with hypermetropic individuals who are compelled to employ continually more or less tension of the accommodation. An emmetropic person may readily convince himself of this by producing an artificial hypermetropia by means of negative glasses placed before the eye, sufficiently strong to quite neutralize the power of accommodation. With every effort at distinct vision through them, double images confuse him, and he must either be content with indistinct vision, or permit a convergent squint. This will be rendered more

apparent by placing a prism with its base outward before one of the glasses. Momentarily double images will appear, to avoid which the eye squints inwards, and distinct vision is attained as by magic.

The same thing often occurs in hypermetropia, the one eye squinting inwards in order to increase the power of accommodation.

It is in the fact, then, *that "the more strongly we converge, the more powerfully can we bring our faculty of accommodation into action," that we find the tendency to abnormal convergence in hypermetropic persons, and in hypermetropia that we find the secret of strabismus convergens.*

That these theoretical considerations do not lead us astray we are assured by a number of circumstances. In the first place, it is rare to find a case of strabismus convergens which is not associated with hypermetropia. In fact, so nearly constant is this, that the oculist at once sets about the determination of the degree of hypermetropia when consulted by persons for the deformity of squint eyes, with very much the feeling that *so many cases of strabismus convergens, so many cases of hypermetropia.*

I have seen but one case of pure strabismus not depending upon opacities which was not associated with hypermetropia. This case consulted me for convergent alternating squint. His acuity of vision, as determined by Snellen test-types, was normal, and in each eye I could detect no manifest hypermetropia, either by trial with glasses or by means of the ophthalmoscope. There was no visible cause for the deviation,—*e.g.*, opacities in the media,—and the fundus appeared healthy. There was no want of power in any of the ocular muscles.

I proposed tenotomy, but suggested to him the possibility of his being obliged to wear spectacles in the future, to prevent the return of the deformity, *so certain* was I, from past experience, that hypermetropia was the hidden cause of the deviation. After thorough paralysis of the accommodation, to my surprise I was unable to detect the slightest degree of hypermetropia. The parallelism of the axes was restored by the operation, but there was no need for spectacles. I relate this case as an exception, and for the sake of the contrast it affords. Donders found that hypermetropia existed in seventy-seven per cent. of the cases, and, in concluding his remarks, states that cases of deviation were included "which it is not usual to refer to the head of strabismus convergens, as tolerably recent cases of paralysis of the abducent muscle, too strongly convergent, nearly immovable myopic eyes, etc. I therefore," he says, "do not hesitate to declare that it is exceptional to find strabismus convergens without hypermetropia."

(To be continued.)

UTERO-PLACENTAL VACUUM.

BY H. G. LANDIS, M.D.,
Niles, O.

WHOEVER has seen a boy's leather "sucker" will readily notice on reflection that it is of very similar mechanical construction to the placenta. As we used to make the aforesaid instrument, it was a circular piece of leather with a string centrally attached. When made pliable by moisture, and applied firmly to a brick, traction on the string resulted in a vacuum beneath the leather, which was so forcibly held down to the brick that the latter could readily be raised from the ground by it. For the sure performance of this feat a flat surface on the object to be lifted was an essential; and this requisite being absent in the womb is the probable cause of the rarity of the accident which is exemplified below, and which seems to deserve the name prefixed to these remarks; for the placenta has every other requirement for its occurrence.

February 9.—Was called to Mrs. M., one hour and a quarter after childbirth. Her labor had been short, but the midwife in attendance could not deliver the after-birth, although she had spared no effort. I found the placenta partially protruding from the womb by a hard conical eminence a little to one side of the attachment of the cord. Seizing the cord, I made as much traction as it would bear, aiding this by external pressure on the uterus, squeezing the womb, etc., all of which had no effect. The idea of a vacuum then coming to my succor, I perforated the placenta, and on withdrawing the hand from the vagina it was at once and rapidly expelled as far as the perineum without any traction at all. No clots followed, and the placenta was of medium size.

Cazeaux mentions almost every possible cause of detention, but not this. Although I have never noticed it unmistakably before, I am inclined to think that some of the cases generally ascribed to the apparent great bulk of the placenta due to the formation of clots, are rather of this nature. In the case just mentioned, the predisposing cause appears to have been a capacious vagina which readily admitted the external air. The immediate cause was traction at an improper time, not before the placenta was detached, for it evidently had been, but before its edge could be felt at the os uteri, after which this or indeed any other of the difficulties in delivering the after-birth are unlikely to occur.

March 15, 1873.

TRANSLATIONS.

A REVIEW OF DOLBEAU ON PERINEAL LITHOTRITY.*

BY S. DUPLAY.

(Translated from the *Archives Générales de Médecine*, Paris, January, 1873.)

"WHEN we long study any subject, we end by becoming penetrated with it, and succeed in forming for ourselves an entirely personal opinion. The ideas which result from such an experience are the product of reflection, and we may believe they are properly our own. Yet these same ideas may be found either in germ, or fully expressed by those who have preceded us in writing upon the same subject."

Thus M. Dolbeau expresses himself in the introduction of his book; and doubtless some little surprise will be felt, after having seen these judicious remarks, which appear to exclude the idea of a new invention, when we

* "On Perineal Lithotrity, or a New Mode of Operating upon Calculous Patients." Paris, 1872.

note that the author retains for his book the double title of "Perineal Lithotrity, or a *New Mode of Operating upon Calculous Patients*." I should fear to enter anew upon a discussion which seems to me exhausted, and which has been the subject of an extensive article in this journal,* endeavoring to establish that perineal lithotrity is not, properly speaking, a new operation, either as conceived or as executed. But if I refuse to admit that the operation may really be a new mode of operating upon calculous patients, and if consequently I criticise this sub-title of the work of M. Dolbeau, I have not the least intention of detracting from the merit of the author, who, in reviving an old idea, in perfecting the mode of the operation and the instruments, has made perineal lithotrity an established operation, and one which seems to me to be destined to effect a material advance in the treatment of vesical calculi.

Although the operation of perineal lithotrity has been described several times by M. Dolbeau, either in his "Treatise on Stone" or before the Society of Surgery, it was indispensable, in order to popularize the method and to furnish the proper data to judge of its value, to present in all its details the manual of the operative procedure, the natural sequelæ of the operation, its accidents and complications, and finally the results which have been accomplished by it up to this time. Such has been the object of M. Dolbeau in publishing the memoir of which we give here a short analysis.

Before describing the operation of perineal lithotrity, the author devotes several pages to two points of anatomy and physiology intimately connected with the execution of the operation. These two points are: first, the exact situation of the bulb of the urethra in relation to the perineum, the anus, and the rectum; second, the dilatability of the neck of the bladder.

In relation to the first point, M. Dolbeau concludes from his numerous investigations that lesion of the bulb is extremely difficult to avoid in the various incisions designed to approach the bladder in the median line. The incision which he adopts to certainly avoid the bulb is [in the median line] only two centimetres at most, and terminates at the junction of the skin and mucous membrane at the margin of the anus. This incision, which would be absolutely insufficient to open the bladder, serves only to approach easily and puncture the membranous portion of the urethra in the first step of perineal lithotrity.

The dilatability of the neck of the bladder has been on the part of the author the object of interesting researches, especially in relation to the operation he advocates. The dilator which he employs, and which is really an excellent instrument, combines the following three qualities:

1. It distributes the dilatation over a great number of points at the same time.
2. It produces a cylindrical dilatation.
3. Finally, it permits the practice of dilatation with slowness, care, and uniformity.

In using this instrument, M. Dolbeau has convinced himself that the neck of the bladder can be dilated to two centimetres, and that beyond this limit the dilatation is accompanied with ruptures which vary with the volume of the instrument. This opening of two centimetres, although insufficient to admit of the passage of a large calculus, permits the introduction of powerful lithoclasts.

I cannot follow the author in the detailed description of perineal lithotrity. This embraces three principal stages:

1. The opening of the bladder.
2. The breaking up of the stone, or lithoclasty.
3. Extraction of fragments and of the calculous débris.

It is necessary to add the preparation for the operation, and the subsequent care of the case.

This subject is treated with the greatest care, and the author has not omitted any of the details of the operation, describing the difficulties which may be encountered, and the dangers which it is necessary to know how to avoid. Indispensable directions will be found for those who would practise this operation with safety, in relation to the instruments, the part of the assistants, the position of the patient, and, lastly, as to the execution of the different steps, the understanding of which, moreover, is facilitated by the introduction of numerous figures in the text.

One of the most remarkable peculiarities of perineal lithotrity, when it is properly practised, is the simplicity and the benignancy of the sequelæ of the operation.

The singular fact that none of the patients have had incontinence of urine, I have verified myself. Desire to urinate is more or less frequent, and the urine then runs off by the perineal wound. By the second or the third day a part of the urine passes by the penis, and within an average period of two or three weeks the recovery is complete.

The immediate complications of the operation are few in number, and not serious in character, as pain, vesical tenesmus, and retention of urine. As to consecutive accidents, M. Dolbeau mentions ecchymosis of the scrotum and perineum, inflammation of the perineal opening, not unfrequently attended by incontinence of urine [? see preceding paragraph.—ED. *P. M. T.*], and, lastly, purulent infection, which was observed in two of his patients.

After an exposé so complete of the manual of the operation, and of the sequelæ of this operation, we should wish to find in the work of M. Dolbeau a critical statement of the indications for and against the operation. The author has endeavored to do this in a chapter on the comparative value of perineal lithotrity; but, if it seems to me decided that "perineal lithotrity" is superior to the several cutting operations, its comparative value to lithotrity by the natural passages has yet to be established, and this important point has, it seems to me, not been sufficiently elucidated.

The memoir of M. Dolbeau is terminated by the relation in detail of the operations which he has practised up to this time, and which number thirty cases, of which twenty-five were recoveries and five deaths.

(Signed) S. DUPLAY.

(We are enabled to add to those of M. Dolbeau three successful cases of this operation by J. W. S. Gouley, M.D., New York.† This gives a mortality in thirty-three cases of 15.15 per cent. In 544 cases of lithotrity performed in the usual manner there were 41 deaths,‡ or a mortality of 7.54 per cent.)

NOTES OF HOSPITAL PRACTICE.

CLINICAL NOTES.

WILLS OPHTHALMIC HOSPITAL.

SERVICE OF GEORGE C. HARLAN, M.D.

Reported by W. H. WINSLOW, M.D.

DETACHMENT OF THE RETINA.

M. W., a woman, æt. 27 years, in good general health, came to the clinic complaining of dimness of sight, which had come on suddenly some two months previously, before which her vision had been perfect; though she had always been myopic.

*Median Perineal Lithotrity, by Dr. Spillmann: *Archives Générales de Médecine*, 1869.

†See New York *Medical Record*, No. 4, vol. viii. p. 75.
‡See Ashhurst's Surgery, p. 845.

Externally, the eyes appeared healthy. Upon testing with Snellen's types, in the left V = $\frac{20}{L}$, in the right $\frac{20}{LX}$, and the field of vision in the latter was found contracted above the horizontal line and to the inner side; but she could count fingers below.

Ophthalmoscopic examination revealed, in the left eye, a large sclerectasia posterior, to the outer side of, and almost surrounding, the disk, with considerable engorgement of the retinal vessels.

In the right there was found a detachment of the retina below the horizontal line. She was ordered to wear blue coquille glasses and to give her eyes perfect rest; rather with a view of avoiding injury to the other eye, than with any expectation of improving the right; and to take elixir of quinine, iron, and strychnia, to improve her general condition.

Another case applied for relief, February 11, in the person of J. W., a robust man, æt. 28 years, a farmer by occupation, who was also myopic and had lost his left eye by a powder-explosion ten years previously, which slightly injured the right.

Vision in the right had always been good, until one warm day last summer, when he got overheated while at work in a corn-field and sat down to rest upon the fence.

Soon after he noticed a dimness of vision, which increased much when he jumped down, and he had to be led home. There had been no improvement since, and vision was only quantitative.

The left eye presented a phthisis bulbi, and the right showed a small corneal opacity,—the result of the injury when the left was destroyed.

The ophthalmoscope disclosed an old detachment of the retina projecting into the vitreous from the lower portion of the fundus, of a dirty grayish appearance, with atrophied, blackish, thread-like vessels.

It rolled up in waving folds, entirely obscuring the deeper portion of the chamber. As nothing could be done to improve or restore his vision, he was recommended to apply at the Asylum for the Blind.

SYMPATHETIC CHOROIDITIS.

H. McG., a man, æt. 60 years, in good health, by occupation a hostler, was struck in the left eye by a carriage-shaft, October 10, 1872, which caused much pain, inflammation, and total loss of vision, and procured his admission into the hospital.

There was much chemosis; a superficial slough of two-thirds of the cornea occurred, with hypopion, for which paracentesis at the lower edge of the slough was performed to evacuate the pus and relieve tension, and a solution of atropia was instilled often.

Pus reaccumulated, distressing symptoms returned, and the paracentesis was repeated; the slough deepened, and much pain supervened, for which the artificial leech was applied to the temple, and the slough gradually healed under slight stimulation by a solution of nitrate of silver.

Vision was destroyed in this eye, but was $\frac{20}{XX}$ of Snellen's in the right.

The patient now left the hospital without permission, and did not return until November 11, when the conjunctiva of the injured eye was found inflamed and thickened, and an anterior staphyloma forming. He complained of dimness in the right, hitherto healthy eye, and, upon testing this, V = $\frac{6}{C}$ only; and, as there was much pain in the left, the latter was immediately extirpated.

After recovery from the operation, the right eye was examined by the ophthalmoscope, and well-marked choroiditis found to the outer side of disk, irregular pigmentation, and white spots of sclerotic here and there, the result of choroidal atrophy, with a crescent forming at the margin of the optic nerve. The operation improved vision at first.

The patient was retained in the hospital under alterative treatment and observation, and now, April 1, 1873, has a distinct sclerectasia posterior, a slightly-cupped disk, with diminished capillary circulation, and an almost complete atrophy of the pigment throughout the fundus, with vision little more than quantitative.

TRAUMATIC RUPTURE OF THE URETHRA—HYPOGASTRIC PUNCTURE OF THE BLADDER—EXTERNAL URETHROTOMY—RECOVERY (De Bousseau: *Union Médicale*, 1872, No. 81; quoted from *Centralblatt für Med. Wiss.*, No. 36, 1872).—A mason, 52 years old, ruptured his urethra, by stumbling and falling. A few weeks subsequently, a stricture had formed so tight that the finest bougies would not penetrate it, and there was an almost complete retention of the urine. External urethrotomy was essayed, but the stricture could not be found, on account of the presence of so much thick cicatricial tissue; and, as most unfavorable symptoms of all kinds set in, puncture of the bladder above the symphysis pubis was resorted to, and the wound in the perineum was kept open.

On the fourth day after the first operation, the same was renewed, as follows: A curved sound was introduced through the wound in the hypogastrium into the bladder, and, guided by the finger placed in the rectum, into the neck of the bladder, and then into the urethra, until the instrument rested on the posterior side of the stricture. The incision was then boldly made through the stricture down upon the blunt end of the probe. The wound healed rapidly, and the recovery was complete.

Three similar cases of operation have been reported by Chopart, Baseilhac, and Voillemier.

LEBERT ON TUBERCULOSIS IN THE FEMALE GENERATIVE ORGANS.—Dr. H. Lebert (London *Medical Record;* from *Arch. für Gynaecologie*, vol. iv. part iii., 1872) has an interesting paper on this subject. From thirty-three observations, he has been able to follow the history of the reciprocal influence of pregnancy and tuberculosis. He concludes that tuberculization of the internal generative organs among women may be the principal primitive localization, or may coincide with pulmonary tuberculization, or finally may be secondary to this.

The malady described as tuberculosis of the neck of the uterus is not demonstrated; it represents most frequently a caseous degeneration of the epithelium of the glands of the neck. The influence of pregnancy and parturition upon tuberculosis shows itself most often between the ages of twenty and thirty years, more between twenty-five and thirty years, and even between thirty and forty years. When the tuberculous process exists in young women, it may be arrested, but generally takes on new development under the influence of pregnancy, often of the first, but sometimes later. It is exceptional that women who have formerly had tubercle resist the influence of repeated pregnancies; their infants are generally feeble and tuberculous.

Pregnancy generally moderates advanced phthisis, but the initiatory phases of tuberculosis follow their course without being hindered during the term of pregnancy. Abortion, pregnancy, and parturition accelerate in three-fourths of the cases the progress of phthisis. Pregnancy has no notable influence upon the localization and the form of tuberculosis. The sad influence of parturition shows itself especially in the cases where pregnancy had favored the development of tubercle. Women affected with tuberculosis have little milk; they cannot generally nurse; the children are weak, scrofulous, and, later, tuberculous.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, APRIL 12, 1873.

EDITORIAL.

OUTSIDE INFLUENCE.

THE appointment of Resident Physicians at the Philadelphia Almshouse Hospital is prescribed to be by *concours*. The applicants are examined by the Medical Board of the hospital, and the result of the examination is accurately reported, by means of a system of merit-marks, to the Board of Guardians of the Poor, under whose control the affairs of the hospital are conducted. It would naturally be supposed that, if the examination means anything at all, it means that those candidates who obtain the highest marks should be, as a matter of course, chosen. Such in fact has been the case the last two or three years,—the highest on the list having been appointed by the Guardians. On a recent occasion the examination was duly held, —the number of vacancies being five,—and the report made; but a motion that the five candidates of highest merit should be declared elected was negatived by a very large majority.

A ballot was then gone into, and four gentlemen were chosen, to the exclusion of the highest applicant on the whole list; but on the second ballot he was elected by a bare majority. It appeared that there was outside influence used, and that letters on behalf of a certain candidate had been written to some, perhaps all, of the members of the Board of Guardians, at the instance of that power, scarcely "behind the throne," which, not content with shaping the legislation of States, is now grasping at the appointments of a poor-house.

Now, we submit that this is all wrong. It is wrong for the institution, since the object of the examination system is to secure for it the services of the *best* men as resident physicians. It is a wrong to the applicants, since they are led to believe that they depend for their success upon their merits alone. It is an insult to the attending staff, since they undertake to grade the candidates according to the amount of ability displayed by each one, with the sole object of guiding the Board of Guardians to a judicious selection.

If the *concours* mean nothing,—if the idea is that it is a mere revision of the action of the Faculties by whom diplomas have been granted to the young physicians seeking the residentships,—then let the system be abandoned, or at any rate remodelled, so as to be a consistent whole. It is by just such admissions of extraneous influences that fairness in scientific and professional competition is most effectually hindered.

A REMARKABLE BOOK.

OUR readers will, we trust, pardon us for digressing for a moment from graver themes, to refer to a work of fiction of unusual interest to the medical profession. The book itself—"Middlemarch," by George Eliot (Mrs. G. H. Lewes)—is a very remarkable one, its merits lying neither in plot nor in incident, but in the wonderful power of subtle analysis of character and motive, and of pithy expression of truth, which stamps its every page. Its chief interest to the physician, however, will be found in the fact that one of the leading personages in the story is a young and well-educated "general practitioner" in a small provincial town in England.

With singular accuracy and force the author has sketched his early bias towards the study of medicine; his hopes and disappointments; his ambitions and failures; his professional associations; the effect of his marriage, to a woman who could not appreciate any of his higher qualities or interests, upon his own development. The final catastrophe of his career in Middlemarch, most ingeniously conceived, is as admirably described.

Novelists have often introduced physicians among their characters, and sometimes made them play important parts in the evolution of their plots. When tested by the light of practical experience, however, the defects of these representations are often singularly absurd. Thus, Mr. Charles Reade makes a surgeon detect a depression of the skull, from injury, "just at the left of the *pia mater*." (!) So far as

we know, Mrs. Lewes has outdone all her predecessors in the *vraisemblance* of her medical hero and his incidents.

As a relaxation from the physical and mental strain involved in the practice of medicine, a certain amount of novel-reading is an invaluable resource; and we are sure that many a hard-working doctor will find himself the better for the perusal of the remarkable book to which we have ventured to devote these few lines.

THE FEE-BILL REPEALED.

AT their stated business meeting on the 2d inst., the College of Physicians of Philadelphia repealed that part of their By-laws relating to the Fee-bill. By this action, which took nobody by surprise, they did not set aside all rule as to the amounts to be charged for medical services, since there is on this point a general understanding in the profession. Nor did they by any means preclude the adoption at any future time, should experience show it to be desirable, of a substitute for the repealed tariff.

The established scale of charges being unsatisfactory, and the substitutes proposed being equally so, the substitutes were laid on the table, and the old tariff set aside. Every man is now at liberty, as indeed he was before, in our opinion, to place such value upon his services as he thinks his patients will be willing to acknowledge. This is as it should be; and we trust the unwritten law will be found a sufficient guide.

OUR London letter for this week has not been received.

CORRESPONDENCE.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—On the morning of the 1st of last December, I was summoned by D. Graham, notary public, to attend an inquest at the residence of the late Mrs. Eliza Collier, one and a half miles southeast of this place. Entered the house,—which is a frame building, eighteen by forty, southern front, front piazza and shed room, back way; all built of pine; about twenty years old. In the right-hand room, about nine feet from the fireplace, lay the remains—*head*, the bones of *left shoulder*, *outer* two-thirds of *left clavicle*, two or three upper *ribs*, and left *arm* and *fore-arm*, with the *hand*. The skeleton of *fore-arm* was lying along the chest with the hand, semi-flexed—as though it had been carried to the mouth—while drawn up under that piece of clavicle was the heart, about *half its natural size*. Under the ribs I found the left lung drawn up to the size of my fist, and looking like the upper leather of an old shoe which had been burned. Spine flexed upon itself, and pelvic bones; latter supported by the *partially burned sleeper*, while the head—face half upwards and towards the front door—lay on the floor beyond the burned opening; as I attempt to represent by the enclosed drawing. [The drawing could not be conveniently inserted here.—ED.] In the pelvic cavity was a bunch of *small* intestines *roasted*. On the ground beneath was the upper half of one *femur* and some few fragments of *ribs*; but, although I gathered up with a hoe the surface covering of the ground, there was no sign of phosphate of lime. The only sign of *flesh* was the face,—bloated, like the men who were blown up in the mines (military) at Petersburg, Va., so that her own daughter could not identify it,—and left hand. This is positively all that remained at daylight—when the burning floor was extinguished—of her whom the servant had left the night before in her usual health. I could have put it all into a small candle-box.

Medical Examination.—Occiput denuded to the superior line by fire, from which point I dissected off the scalp, and found ecchymoses—suggillations?—at a point midway between the eminence and posterior superior angle of left parietal, superficial bruise at anterior angle of left eye, and another just above the eyebrow, showing, by the grit thereon, that they were from striking against the floor. Pupils *perfectly* normal: I do not profess to be able to tell by the reflection, but certainly there was no appearance of quailing, as they are said to show from fear; there was no sign of compression or concussion,—nothing, in fact, that would justify my opening the skull. *Protruded* tongue seemed to be inflated, rough like sand-paper, and tied around—so to speak—at its roots by the constrictor oris. Opening the heart, I found the auricles empty, while the ventricles were filled with a mass, size of a walnut, about the consistency of a lump of prepared chalk, and Spanish-brown color, as shown by marks made therewith on the table. Strange to say, there was not a shade of difference between venous and arterial masses.

Evidence.—I find several bruises,—as shown the jury,—neither of which indicate violence at all; certainly not sufficient to have produced death. And, as the eyes are natural, together with the fact that the skull is entire, we conclude that there have not been any very severe blows on the head; that ecchymosis which I have pointed out to you is natural in the dead subject.

I have seen similar condition of the tongue in a man of General Casey's division, who was killed at Seven Pines. Dr. De Lean, General Lee's Medical Director, named it, but I do not remember any technicality by Dunglison, nor that it is pathognomonic. I have seen it in violent peritonitis from gunshot wounds of intestines,—once in a case of wound of bladder,—soldier under my care at Camp Jackson Hospital, near Richmond, Virginia. The absence of blood-stains *anywhere* precluded the idea of lacerated or incised wounds. She came to her death by fire; and the complete destruction, without leaving even the constant phosphate of lime from the bones, with such slight in-

jury to the house (*and most of that must have occurred after the body was destroyed*), especially in such a cold, dry time, together with the *positive evidence* that no other fuel, not even her wearing-clothes, was used; furniture, etc., all intact; bed showing that it had been occupied; candle *nearly entire*, and matches on the mantel-piece; no evidence of any unusual fire having been in the fireplace, but just the contrary, for the few remaining chunks were not scattered; nor did the abundant *cobwebs* show any new deposit of soot, as they would had there been much smoke in the room,—so far exceeds anything which I have seen (and I have seen bodies that had been exposed to the concentrated heat of four stories which were burned beneath them; and, as I learn from one of this jury, so far exceeds the destruction of a man whom he saw chained to a tree inside of a kiln of light wood, several banks thick, all saturated with spirits of turpentine before being fired), together with the previous history of the person, who, by the way, was about seventy-five years of age, brings me, notwithstanding the teachings of Dupuytren, Liebig, Bischoff, and others, to believe that it is a case of what may be truly called *spontaneous (?) combustion;* stranger by far than those of Devergie, in his work on "Médecine Légal." In some respects this case is very much like the one reported by Le Cat,—inasmuch as a party who was seen at the house after sun-down, on the best of terms, and, as I am assured, stopped (on his way from this place) there as late as 9 o'clock P.M., saying to his comrade that he was going to have a big hot whisky or ginger dram with the old lady, with whom he was going to work next year, is suspected of, or rather the Governor of the State offers a reward for his arrest, calling him the murderer of Mrs. Eliza Collier. Mrs. Collier's, however, differed from all other cases of *so-called* spontaneous combustion in one very important particular. She was the merest shadow of any living person I ever saw (I had reduced a dislocation of the left shoulder for her only a short while before, and remember that she was almost devoid of *visible* muscle). Again, she was some nine feet from the fireplace, and there was no burnt place between herself (where she was) and the fireplace. There was, however, another burnt place, where her shawl had been partly or entirely burned up, but it was some six feet from the other place,—rather towards the northeast corner of the room.

It is certainly a very strange case. I know but little—though of same name—of the old lady, save by report. She had property; had seen trouble from various causes; and *report* says she drank heavily; she lived alone, refusing to allow any of her family (and she had several daughters) to stay with her. As to actual *spontaneous* combustion of the body, I do not believe in any such; spontaneous is not the word; but there must have been some predisposing cause for such burning, and I trust you will be able to throw light on it.

I send you an unvarnished statement of facts, with full permission to cull anything therefrom which you may consider worthy of your most excellent journal. Hoping you will remember the haste in which it has been scratched, and pardon its very many deficiencies,

I am, very respectfully, etc.,

J. M. COLLIER, M.D.

ORION, GEORGIA, February, 1873.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, MARCH 13, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. H. LENOX HODGE exhibited *multilocular ovarian cysts* removed from a woman 26 years of age, by ovariotomy, on Wednesday, March 5, 1873. The patient was doing well when last heard from.

The cysts are very numerous,—some of large size containing others within. The fluid was thick and ropy, varying in consistence and color in different cysts. The specific gravity was about 1037. Upon application of heat and nitric acid it coagulated very firmly, showing a large quantity of albumen. A microscopical examination detected granular cells about the size of white corpuscles, and granules in irregular-shaped heaps.

The pedicle was about four inches long, about two inches wide, and one-fourth of an inch thick.

The other ovary was healthy, and no enlarged Graafian follicle detected; and yet three days after operation the menstrual discharge appeared, after an absence of nearly eight weeks.

Dr. R. M. BERTOLET asked for some further particulars with regard to the granular cells alluded to, whether they seemed to be provided with a cell-wall, and what was the character of their granular contents, whether they were coloring-matter or drops of fat.

Dr. HODGE replied that as to a minute explanation, he must leave that to the microscopists; but, as far as he could tell, the cells resembled the colorless corpuscles of the blood; and, if the latter has a cell-wall, these granular cells also might have a cell-wall. He thought that the granules they contained were neither fat nor coloring-matter. He believed they were the cells which Dr. Atlee, or rather Dr. Drysdale in Dr. Atlee's work on "Diagnosis of Ovarian Tumors," considers pathognomonic of ovarian tumors. Dr. HODGE professed to know very little about the histology of ovarian fluids. He thought Dr. Koeberlé, of Strasbourg, had made the most careful examinations with which he was familiar.

He thought that it was the inclination of all pathologists to consider ovarian cysts more or less connected in their development with the Graafian follicle; and he was therefore inclined to trace the contents of the cyst to an alteration in the original contents of the follicle, although he knew that cysts occur in the fibrous structures of the ovary, as well as in other fibrous structures.

Dr. JOSEPH G. RICHARDSON said that he had found these compound granular corpuscles in several cases of ovarian tumor; but they were generally larger than the colorless corpuscle, usually twice as great in diameter. He believed their granular contents fatty, and in their entirety they resembled the compound granular corpuscles found in inflammatory and other degenerative diseases of the brain. He had not been able to discover a cell-wall.

The PRESIDENT asked Dr. RICHARDSON whether he attached any importance to them.

Dr. RICHARDSON said they might be of value in determining ascitic fluid from that of ovarian cysts.

Dr. HODGE said that Spencer Wells, of London, Keith, of Edinburgh, and Atlee, of Philadelphia, all declare there is no real difficulty in distinguishing ascites from ovarian dropsy by physical signs and other means; but in distinguishing ovarian tumor from fibro-cystic growths of the uterus, if this cell exists in the ovarian and not in the fibro-cystic tumor, it must be a valuable aid to diagnosis.

Dr. JAMES TYSON regretted very much that these views should have been promulgated under a name so deservedly well known as that of Dr. Atlee. For he was satisfied that it was opening an elementary question in pathology long since settled, the effect of which can only be to mislead for a time those ignorant of the subject; for those who have had any comparative experience can scarcely be misled. He had enjoyed an opportunity, through Dr. Mears, of making a number of examinations of ovarian fluid derived from the cases of Dr. Atlee, and was perfectly familiar with the cell spoken of as the "ovarian cell," which is nothing more than the ordinary *compound granule-cell* formerly improperly called the "exudation corpuscle" or "inflammatory corpuscle" of Gluge, and for some time determined to be nothing but a fattily degenerated cell, in whatever locality found, and liable to be found in any locality. It is of course more frequently seen in situations where rapid tissue-change is taking place, either in inflammatory or non-inflammatory softening. Of the former, instances are seen in the so-called exudation of pneumonia or acute nephritis, as well as acute softening of nervous centres; and of the latter, examples are found in the chronic fatty degenerations of the nerve-centres, of the kidney, and, indeed, all fatty degenerations. Perhaps the most typical form of compound granule-cell is the colostrum corpuscle, which is the fattily degenerated epithelial cell of the milk-duct, and which by a further fatty degeneration forms the fat-globules of milk.

In ovarian cysts it is the fattily degenerated epithelial cell derived slowly or rapidly from the epithelial lining of the cyst, and is sparse or abundant according as the contents of the cyst are transparent and thin, or opaque and dense, or intermediate in both these respects. But it is also found, though of course in smaller numbers, and perhaps less marked in its degree of degeneration, in the most transparent serum from the pleuritic or peritoneal or any synovial cavity, when it is derived from the epithelial lining of such cavities. And when these secretions are altered in quality or quantity, the number of these cells is increased. Recently Dr. Tyson had tapped a patient with pleurisy in his ward at the Philadelphia Hospital, drawing off a large quantity of sero-purulent fluid, which, in addition to pus-corpuscles in different stages of degeneration, contained numerous typical compound granule-cells. So also, although present in limited number in the normal peritoneal fluid, in the altered fluid of ascites they are more numerous; and it is equally apt to occur in the contents of fibro-cystic tumors of the uterus.

Dr. JOSEPH G. RICHARDSON said that if the compound granule-cell is a fattily degenerated cell we would not be apt to find it in those fibro-cystic tumors which have no epithelial lining.

Dr. BERTOLET remarked that all these fibro-cystic growths have an endothelium.

Dr. J. EWING MEARS said he was glad to hear the discussion on this subject. It had been one of great interest to him during the past three years, and, through the opportunities kindly presented to him by Dr. Atlee, he had given much time to its investigation. He regretted exceedingly that he could not accept the views announced in the work of Dr. Atlee, to which allusion has been made, and which gives to the fluid of ovarian cysts a pathognomonic product in the so-called *ovarian cell*. No one would welcome the discovery of such a product with greater satisfaction than himself. He would regard it as a great advance in ovarian pathology, and it would render the diagnosis of ovarian disease both certain and easy. He had submitted to Dr. Tyson, and examined with him, fluids from ovarian cysts, and could agree with all that he had said upon the subject.

Dr. MEARS had examined specimens of the fluid contents from all varieties of cystic disease of the ovary, and he believed that by a simple analysis they could be separated into solid and fluid constituents: the former consisted of cells from the epithelial lining membrane of the cyst, and the latter was serum with a greater or less amount of albumen (in addition to that in the serum normally) derived from the cells which had undergone disintegration. These cells, undergoing fatty degeneration, were detached from the epithelial membrane, and their forms became altered. In the fluid of simple unilocular cysts he had observed the cells in the incipient stage of fatty degeneration, showing nearly normal forms with but few granules. In this variety of cyst the tissue-change is not rapid, and as a result the fluid is usually not very consistent,—about like serum,—and contains but few cells.

In multilocular cysts, on the contrary, where the degenerative change is very active, the fluid is found to be very viscid, and contains a much greater proportion of albumen, with great quantities of granule-cells and granular débris from the broken-down cells.

The physical properties, as well as the microscopical characters, are to be considered in distinguishing ovarian fluids from those taken from the abdominal cavity in simple ascites, in inflammatory conditions, or in fibro-cystic tumors of the uterus. Neither can be taken separately as positive evidence; together they are confirmatory, and become important aids in diagnosis.

OBITUARY.

DR. RENÉ LA ROCHE.

IN the death of Dr. La Roche, on the 9th of December last, the medical profession lost one of its most distinguished ornaments. Born in 1795, in this city, in which his father, a graduate of Montpellier, in France, and afterwards a resident of St. Domingo, practised medicine, he did not commence the study of his profession until 1817, having been for several years engaged in commercial business. He graduated at the University of Pennsylvania, in 1820. During the War of 1812 he was captain of a volunteer company in Colonel Chapman Biddle's regiment. Soon after graduation, he became connected with Dr. Chapman's Summer School, as it was familiarly called, and was one of the most active members of the "Kappa Lambda Association of the United States," under whose auspices the *North American Medical and Surgical Journal* was for several years issued. When this society ceased to exist, the Monday Evening Club—the first medical club, it is said, in the United States—was founded, consisting of Drs. Wood, Hodge, Meigs, Bache, Condie, Coates, Bell, and La Roche, with whom Dr. Bond was soon after associated, and, at a much later date, Dr. S. H. Dickson. Dr. La Roche was for a long time an active member of the College of Physicians, one of the original members of the Pathological Society, and at one time its president, and a member of numerous medical and literary societies at home and abroad. He had been president also of the State Medical, County Medical, and Philadelphia Medical Societies. As a contributor to the literature of his profession his

services are memorable, for he was not only the author of several voluminous treatises, but he was indefatigable in his researches on a vast variety of subjects, which, when published in the medical periodicals of the day, attracted universal attention by their erudition, clearness, and practical application. There was hardly a respectable medical journal in the country whose columns were not at some time or other enriched by valuable contributions from his pen, embracing not only original classical papers, but elaborate reviews. His large works on Yellow Fever and on Pneumonia were and are standard authorities on these interesting topics, being almost exhaustive in the amount of information embraced in them. He was always writing, almost to within a few hours of his death, and has left behind sufficient material for several volumes, on subjects which are not hackneyed, but in their originality exhibit the natural inclination of his mind to trace out new and unbeaten paths in literature. His posthumous writings include material for several volumes on Music and its Uses in Medicine, on Fevers, on the Plague of Athens, a History of Schools from the revival of medicine to the present time, etc. He had written a great deal on music, and was at one time the possessor of a very extensive and valuable musical library. His health had always been delicate, without the evidence of positive disease, and he died of prostration, after several months of feeble physical condition, with a mind calm and clear to the very moment of dissolution.

REVIEWS AND BOOK NOTICES.

NOTES ON ASTHMA: its Nature, Forms, and Treatment. By JOHN C. THOROWGOOD, M.D. Lond. Second Edition. Philadelphia, Lindsay & Blakiston, 1873.

The main object of this excellent little work is to discuss the treatment of that distressing malady, asthma; at the same time, however, a short but explicit description is given of its pathology, and the different varieties in which it occurs. The reader is referred for a complete history of the disease to the late Dr. Hyde Salter's monograph on the subject.

Our author teaches that the asthmatic paroxysm is due to spasmodic contraction of the bronchial muscles, and compares this to colic. Spasmodic asthma is looked upon as a pure neurosis, and is to be treated accordingly. The treatment most strongly recommended during the asthmatic paroxysm consists in inhalations of chloroform, nitrite of amyl, and the fumes of burning nitre paper. The author also advises smoking the leaves of the datura stramonium and datura tatula, but prefers the latter as being safer and more effective. As internal remedies during an attack, antispasmodics such as the datura tatula, belladonna, and chloral are the only articles considered worth using.

As curative means, climate and rigid attention to diet are deemed of primary importance. The patient is directed to eat but lightly, the main meal being early in the day, and supper not later than 6 P.M., consisting of bread and milk or a cup of cocoa or tea with plenty of milk. But little drink is permitted. However, two or three hours after dinner, some "toast and water or pale brandy and water may be allowed." By the way, why is it that so many English writers refer to "toast-water" as a beverage which it must be a privilege for a patient to quaff "*ad libitum*" ?

Speaking of diet, it strikes us that the amount of food allowed the asthmatic by Mr. Pridham, as quoted by our author, would not long sustain an ordinary man taking even a moderate degree of exercise. It consists of six ounces of stale bread, four ounces of meat, and a half-pint of tea or coffee in the twenty-four hours. This writer also permits the use of "toast and water" after dinner.

The medicines which Dr. Thorowgood has found of the most benefit are nerve-tonics, such as oxide of zinc, arsenic, quinine, phosphorus, and the salts of iron and silver. Arsenic and the oxide of silver seem to have proved most useful. Of course it is only for those cases of a purely nervous or spasmodic nature that such remedies are advised. The author has also found sulphur and the hypophosphites of soda, potash, and lime of great advantage in asthma of long standing.

We should regret very much being reduced to the necessity of administering to a patient the "oleum sulphuratum" of the Ph. Lond. 1824, "a brown viscid substance with a most unpleasant smell," or even the sulphuret of potassium, pills of which the writer admits to have a "disgusting smell."

Iodide of potassium is recommended where there is any structural change; and in cases of "bronchial asthma," *i.e.*, where there is inflammation of the bronchial tubes in addition to asthma, mercury is highly esteemed. The cases given as illustrative of the curative effects of this drug are not, however, entirely convincing of its value.

The use of compressed air in the treatment of the different forms of asthma is favorably spoken of, but no mention is made of the inhalation of pure oxygen. Dr. Andrew H. Smith, in the *New York Medical Journal* for April, 1870, quotes several cases of asthma where this gas was successfully used.

A chapter is added in this edition on laryngeal and tracheal dyspnœa, and one on "hay asthma" concludes the book. Change of air is considered the best treatment for the latter. Numerous other remedies are mentioned, as inhalations of ether and camphor, the spray of a solution of quinine (as advised by Helmholtz), and various snuffs.

The book is well and agreeably written, and notes of a number of cases are introduced to illustrate the disorder and its treatment.

WHAT WOMEN SHOULD KNOW. A Woman's Book about Women. Containing Practical Information for Wives and Mothers. By MRS. E. B. DUFFEY. Crown 8vo, pp. 320. Philadelphia, J. M. Stoddart & Co., 1873.

Exactly who Mrs. Duffey is, does not appear from this book. She certainly has not had a medical education, since she betrays ignorance of some of the commonest things taught to every student; and yet she has had some experience, some reading, and some acquaintance with professional men (and women). In the volume before us, there is certainly much that is sound and trustworthy; but there are many topics which are of vast importance, as for example the treatment of croup, that of abnormal presentations of the fœtus, and that of post-partum hemorrhage, which are discussed in a way that would give no adequate idea of their gravity. And there are not a few statements to which we could by no means subscribe.

LESSONS IN ELEMENTARY ANATOMY. By ST. GEORGE MIVART, F.R.S., etc. 12mo, pp. 535. London, Macmillan & Co., 1873.

The author of this little work, while he has intended it for the use chiefly of teachers, and for readers of either sex, not already acquainted with anatomy, has sought to make it answer also for students of medicine who wish to look into the relations existing between man's form and the structures of other animals.

He seems to have accomplished his task with ability and judgment, although, in our opinion, a combination of this kind is not the most useful form of publi-

cation. We should have preferred two books,—one an altogether elementary hand-book, for non-medical readers, and the other a full and comprehensive treatise, for the regular student of anatomy. The omission of all reference to the generative organs, while very proper in a school-book, will diminish the value of the work for those who are inquiring more deeply into the subject. The excellent typography and abundant illustration of this volume add greatly to its attractiveness.

GLEANINGS FROM OUR EXCHANGES.

Teissier on Bronchial Hemorrhage as a Cause of Pulmonary Phthisis (London *Medical Record*, February 5; from *Lyon Médical*, January 5, 1873).—M. Teissier brings forward some cases in support of the view that broncho-pulmonary hemorrhage may be an occasional cause of pulmonary phthisis. In the earlier part of the paper, the author alludes to what has been stated by other observers (Trousseau, Bricheteau, Graves, Jaccoud, Bouchard, and Niemeyer) in favor of this mode of origin of the disease. In quoting Niemeyer, he advances the teaching of this pathologist, that the irritation of the lung or bronchial mucous membrane by foreign bodies is an occasional cause of phthisis, and that of these foreign bodies coagulated blood is the most frequent; further, that in those cases in which very acute phthisis immediately follows an attack of pulmonary hemorrhage in persons previously healthy, the inflammatory disorganization of the lungs is determined by the presence of the coagulated blood.

In stating his own views, M. Teissier says that bronchial hemorrhage is accompanied or followed by active hyperæmia, which is capable of giving rise to caseous pneumonia, or even to tuberculosis, in persons *predisposed to phthisis*. Whilst admitting that bronchial hemorrhage is much more frequently a consequence than a cause of phthisis, and that it may occur in individuals otherwise healthy without producing any results, he maintains that in comparatively rare cases it undoubtedly plays an important part in the causation of this disease in debilitated or scrofulous persons, or in those in whom there exists the least tuberculous tendency.

The experiments of MM. Perl and Lipmann, which show that blood injected into the trachea of dogs and rabbits produces no other results than a slight amount of local emphysema and pigmentation of the epithelium, are, according to M. Teissier, no evidence that bronchial hemorrhage is incapable of inducing phthisis in man; inasmuch as in the latter there is presumably some disease of the bronchial or pulmonary blood-vessels, which is in itself a condition tending to produce more or less permanent congestion. No anatomical evidence, however, is adduced in proof of the existence of any vascular change.

In speaking of the results of his own clinical experience, the author states that he has met with cases in which hæmoptysis appeared to be the precursor and determining cause of phthisis. He gives an account of three cases.

The first case is that of a man, aged 40, who was the subject of hæmophilia. He had from time to time attacks of hæmoptysis, and in the course of two years he presented the physical signs of phthisis. The disease terminated fatally.

The second case is that of a healthy man, aged 45, in whom profuse hæmoptysis occurred whilst he was travelling in the mountains of Auvergne. The hemorrhage lasted for a few hours, and he soon regained his usual health. Two years later, the hæmoptysis returned, and continued at intervals for about three weeks, and shortly afterwards physical signs of pulmonary consolidation were for the first time discovered. Death ensued in three months.

The last case, which is the most conclusive, is one in which pulmonary hemorrhage, caused by external violence, terminated in phthisis. A robust and perfectly healthy man, aged 33, was injured on the right shoulder by the fall of a tree. He was simply bruised; there was no fracture or dislocation. The injury was immediately followed by very profuse hæmoptysis, and he continued to spit blood more or less for eighteen months. He then began to suffer from dyspnœa, cough, and expectoration; and a physical examination of the chest discovered commencing disease at the apex of the right lung. The signs of pulmonary disorganization gradually increased.

The author concludes by again stating that it is only in those in whom there exists some predisposition to phthisis, that hemorrhage can determine the disease; and adds that, even when hæmoptysis is a *consequence* of phthisis, the presence of the blood often greatly aggravates the disease, and tends to hasten a fatal termination.

Cohnstein on Determination of the Life or Death of the Fœtus (London *Medical Record*, Feb. 5).—Dr. Cohnstein (in *Arch. für Gynäk.*, vol. iv., 3d part, 1872) states that the information whether the fœtus is living or dead during pregnancy, but especially during parturition, is often of the greatest importance; and where hearing the fœtal heart and feeling the fœtal movements fail or are uncertain, ascertaining the temperature *in utero* will often very materially assist if not decide us in determining the question. It is a fact that the temperature of the fœtus *in utero* is higher than the maternal temperature, and experience proves that the careful introduction of the thermometer into the uterine cavity, between the membranes and the wall of the uterus, is unattended by harm. We have thus a ready mode of settling the question when it is otherwise doubtful.

Successful Employment of Propylamin in Acute Articular Rheumatism.—M. Dujardin-Beaumetz, in a recent communication to the Société Médicale des Hôpitaux of Paris, related the results of his trials of propylamin in acute and subacute articular rheumatism. They had been very successful; the pain had first diminished, then the movements became easier, and the swelling in the joints disappeared rapidly. The duration of the attack seemed generally to be greatly shortened, and, on an average, the disease was stopped in about eight days. Dr. Dujardin-Beaumetz generally uses the following formula: propylamin, ten to thirty grains; tilleul water (infusion of linden-tree leaves), three ounces; syrup of morphia, five drachms; essence of aniseed, sufficient quantity.

M. A. Béchamp (London *Medical Record*, January 29) read a note before the Paris Academy of Sciences, December 30, on the alcoholic and acetic fermentation of the liver, and on the physiological alcohol of human urine. The author has obtained from two litres of urine, from a man of fifty, enough alcohol to estimate.

At Kinkiang (on the Yangtse), Dr. Shearer (*Edinburgh Medical Journal*) has been using strychnia in cases of opium-poisoning, with a success which bids fair to rival the magnificent results obtained by Dr. Johnston at the Chinese Hospital at Shanghai from atropine.

An Anatomical Society has lately been founded in Madrid by Dr. Velasco, who is also the editor of a periodical, of which the first number appeared last month, —the *Anfiteatro Anatomico Español.*

MISCELLANY.

WOMEN AS PHARMACISTS.—From a notice concerning the employment of women in pharmacy, in the *Gazette Médicale de Paris* for December 28, 1872, it appears that after female doctors we shall have female pharmacists: the one necessitates the other, though we should have thought that the mistress of pharmacy would have preceded the doctoress. However that may be, the School of Industry for Women, established in Amsterdam in 1869 by the Society of Public Usefulness (*Société d'Utilité publique*), has already qualified five young women for the pharmaceutical profession, and is now engaged in educating seven others for the same vocation. Doubtless others will not be slow to follow this example. Already German societies, instituted to obtain means of existence for women, think of uniting to present to the Federal Council of the Empire a petition praying that women should be authorized to follow the profession of pharmacist, or, at least, that of dispenser. It seems that there is a complete dearth of dispensers in the little German towns, and especially in the country. The new measure which is demanded should have the effect of obviating this state of things.

A BRAZILIAN PATRIARCH.—According to the *Anglo-Brazilian Times*, at a recent census in Brazil, there was found living at Cape Frio, in the province of Rio de Janeiro, a man named José Martino Coutinho, who was born on May 20, 1694, and was consequently 178 years old. He was in perfect possession of his mental faculties, and complained only of stiffness in his knee-joints. The account states that he fought when young against the Dutch at Pernambuco, and that he remembered the principal events of the reigns of John V., Joseph, and Maria I. (*circa* 1750–80). He is said to have been married six times, and to have had forty-two children, and to be able to count in his descendants 123 grandchildren, 86 great-grandchildren, 23 great-great-grandchildren, and 20 children of the latter.

DR. EDWARD FLOURENS RIVINUS, who died at Hyères, France, on the 14th of February, was an extremely well-educated physician, and at one time practised medicine in this city. He was a man of property, and had retired from active professional life for many years. He was one of the managers of the Episcopal Hospital.

MAHOMET-ALI-BEY, an Arab surgeon, who recently cured the mother of the Khedive of Egypt of a serious malady, received from his patient a fee of five thousand dollars, and has been raised by the Viceroy to the rank of a Pasha.

THE suspension of the New York *Psychological Journal* is much to be regretted. It certainly did not owe its ill success to lack of ability in its editorship, or of interest and importance in the subjects to which it was devoted.

SIR HENRY HOLLAND is 84 years old, being the senior Fellow of the Royal Society.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending April 5, 1873, were 332; 182 adults, and 150 minors. 10 were of bodies brought from the country; making the mortality of the city 322. Among the assigned causes of death were:

Consumption of the Lungs	63
Other Diseases of the Respiratory Organs	48
Diseases of the Circulatory Apparatus	17
Diseases of the Brain and Nervous System	64
Diseases of the Digestive Apparatus	19
Zymotic Diseases	28
Typhoid Fever	6
Diseases of the Urinary Organs	5
Casualties	6
Cancer	4
Suicide	1
Debility (including "Inanition" and "Marasmus")	25
Still-born	8
Old Age	15

(The interments reported for the week ending April 6, 1872, were 418.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER. Max.	Min.	BAROMETER. (2 P.M.)
Mar. 30	53.5°	43.0°	29.84 in.
" 31	57.0	47.0	29.89 in.
April 1	59.0	39.5	30.17 in.
" 2	70.5	55.0	29.83 in.
" 3	64.0	43.0	30.07 in.
" 4	59.0	44.5	30.26 in.
" 5	64.0	43.5	30.24 in. (Thunder-storm.)

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM APRIL 1, 1873, TO APRIL 7, 1873, INCLUSIVE.

COUES, ELLIOTT, ASSISTANT-SURGEON.—Assigned to duty, as Medical Officer and Naturalist, with the expedition for the Survey of the Northern boundary. S. O. 68, A. G. O., March 31, 1873.

BOOKS AND PAMPHLETS RECEIVED.

Text-book of Physiology, General, Special, and Practical. By John Hughes Bennett, M.D., F.R.S.E., etc. etc. With twenty-one Photo-Lithographic Plates. Small 8vo, pp. 606. Philadelphia, J. B. Lippincott & Co., 1873.

Family Thermometry: A Manual of Thermometry for Mothers, Nurses, Hospitals, etc., and all who have charge of the Sick and of the Young. By Edward Seguin, M.D. Crown 8vo, pp. 72. New York, G. P. Putnam & Sons, 1873.

First Decennial Catalogue of the Trustees, Faculty, Officers, and of the Alumni of the Bellevue Hospital Medical College, of the City of New York, from 1860 to 1871. Compiled by Frederick A. Castle, M.D., Historian of the Alumni Association. Preceded by a History of the College, from its Organization to 1872, by Leroy M. Yale, M.D., President of the Alumni Association. 8vo, pp. 66. New York, D. Appleton & Co., 1873.

The Logic of Medicine. By Edward S. Dunster, M.D. (Reprint from the New York *Medical Journal*, March, 1873.) 8vo, pp. 31. New York, D. Appleton & Co., 1873.

The Credit Guide. Philadelphia. Vol. II., No. 1. April, 1873.

Report of Commissioners appointed to Select a Site and Build an Asylum for the Insane of New Jersey. November 1, 1872. 8vo, pp. 15.

SATURDAY, APRIL 19, 1873.

ORIGINAL LECTURES.

LECTURES
ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 436.)

LECTURE VIII.

STENOSIS OF THE LARYNX AND TRACHEA.

STENOSIS, or stricture, of the larynx or trachea occurs in the wake of inflammation, whether traumatic, idiopathic, or specific. It follows chondritis and perichondritis with discharge of the cartilage. It may be due to organization of effused products of inflammation, or to cicatricial constriction following the healing of inflammatory ulcers, or to loss of tissue from injury. It is most frequently met with in connection with syphilis, but occurs in tuberculosis also.

The symptoms of this condition are those of impaired freedom of respiration; and on laryngoscopic examination we recognize alterations of parts, or adhesions of parts, diminishing the calibre of the tube. Sometimes the vocal cords are adherent in more or less of their extent; sometimes the ventricular bands are adherent in the same manner; and sometimes the inner surfaces of the arytænoid and supra-arytænoid cartilages are adherent. Tracheal stenosis is usually the result of vicious cicatrization of ulcers. It cannot always be recognized on laryngoscopic inspection, but is rather inferred from previous history, existing symptoms, and want of evidence of stenosis of the larynx, or external compression of the trachea. Sometimes the condition can be determined physically by exploration with bougies. This condition is a very serious one; necessitating, as a rule, the performance of tracheotomy and the permanent use of the canula. If the stenosis exists low down in the trachea, below a point at which a tracheotomy-tube can be inserted, there is no reliable remedy, inasmuch as stricture of the trachea is hardly ever susceptible of dilatation. In some cases of this kind it has been suggested that a long tube might be introduced low down through an external opening, and the maintenance of respiration be secured in this way.

Attempts have been made to dilate the calibre of the larynx and trachea by means of metallic bougies; and with a certain amount of success in some instances, respiration being secured by means of the tracheotomy-tube. Since the use of the laryngoscope, various operations have been performed, previous to the dilatation, for the purpose of relieving adhesions or removing exuberant tissue, the knife or the galvano-cautery being employed for the purpose. After such operation, dilating forceps are introduced through the mouth, and the parts kept asunder for a few moments and stretched. Then the dilators are introduced several times a day. In some instances the dilating tubes have been allowed to remain for several hours, or for several days; but there is great difficulty in their use, on account of the trickling of saliva down their sides into the larynx. Trendelenburg has tried to obviate this difficulty by inserting small segments of dilators, secured by a strong ligature which is allowed to pass out of the mouth. The string is less liable to excite salivation, and a smaller quantity gains entrance into the larynx. The treatment is exceedingly tedious. When the constriction seems in part overcome, a tracheotomy-tube with a valve or ball in it may be used, instead of the simple canula. This is for the purpose of encouraging expiration through the mouth instead of through the tube. If this goes on well, the tube is closed after a while, and both inspiration and expiration effected through the mouth. If this, too, goes on well, the tube is withdrawn for a few minutes every few hours, and, after a while, for a few hours every day, until it is evident that respiration can be effectually carried on in the natural manner; when the tube is finally withdrawn. It often happens that respiration becomes impeded in a few days after the withdrawal of the tube, so that the old incisions have to be reopened, and the tube employed again; but in a few days more it may again be withdrawn, and perhaps permanently. All this time dilatation with bougies is carried on daily by the patient, who should be taught the manœuvre, which should be persisted in for a long time.

It is useless to employ dilatation if the constrictions or the adhesions have not been previously relieved by the knife or cautery; for the parts are elastic, and, though they may stretch on the introduction of a bougie, they immediately come together again on its withdrawal.

Where it is impossible to overcome the stenosis by the means indicated, it would be questionable, in cases where the voice is irrevocably lost, whether, under suitable circumstances, an operation would not be justifiable, having for object the clearance of the larynx for respiratory purposes only. It seems possible that the larynx could be divided externally, the mucous membrane raised, the offending structures stripped off down to the perichondrium, and the mucous membrane then replaced. If the constriction concerned the upper portion of the larynx only, access might be had to it from the side, by Malgaigne's operation of sub-hyoid pharyngotomy.

ASPHYXIA.

Asphyxia—suspension or interruption of the access of air to the lungs, stoppage of the respiration—sometimes demands the services of the surgeon. Asphyxia may be caused by inflammatory swelling; organic obstruction; cicatrization; direct violence, accidental or surgical; closure of mouth and nostrils; hanging and choking; foreign bodies in the larynx, trachea, pharynx, or œsophagus; in-

halation of noxious gases; spasm of the larynx, from whatever cause; impaction of the epiglottis; the entrance of water, blood, or other liquids.

The various methods of restoring animation and keeping up artificial respiration are too well known to call for repetition in this report. They were briefly demonstrated by the lecturer, who stated that in the only instance in which he had an opportunity to try Professor Richardson's method of artificial respiration by means of a special bellows arrangement, which he exhibited and explained, he found it insufficient for the purpose, and abandoned it for Sylvester's method, by which he eventually saved his patient. The importance of immediate tracheotomy in case of impending death—even in cases of foreign body in the pharynx—was dwelt upon, and various devices were mentioned for maintaining the patency of the wound without the use of the tube, until the cause of the asphyxia could be removed.

FISTULÆ OF THE LARYNX AND TRACHEA.

A fistula of the larynx or trachea is either congenital, or the result of an abscess, or traumatic injury. Very little annoyance usually exists in connection with this affection, other than that arising from the more or less constant presence of discharge. The existence of an internal opening communicating with the air-tube can occasionally be seen with the laryngoscope, or is detected by the injection of some colored liquid, or by the passage of a fine probe along the fistulous tract. The egress of air from the interior at once denotes that the fistula is complete, *i.e.* has an external and internal opening.

The site of the external or cutaneous opening of congenital fistula of the neck is nearly always constant in the region of the sterno-clavicular articulation at the inner or outer margin of the sterno-mastoid muscle. Congenital fistula of the larynx is sometimes double-sided: out of forty-six cases reported by Heusinger,* ten were found to exist upon both sides of the neck. A fistula of the œsophagus or pharynx, or one merely leading to the thyro-hyoid bursa, must not be mistaken for an incomplete fistula of the air-passages.

The deformity in the neck, the constant presence of the discharge, and the frequent imperfections of the voice, often render the patient desirous of undergoing an operation for obliteration of the fistula, or at least of its cutaneous opening; but, as a rule, it is less successful than similar operations undertaken for the obliteration of fistulæ of inflammatory or traumatic origin in other parts of the body.

Several different procedures may be resorted to for obliteration of the fistula of the neck, the choice being determined by the size of the fistula.

I. Simple suture may be used when the opening is small, with its borders covered by integument, and the edges drawn inwards. Dieffenbach† recommends that some inflammation be first set up in the edges by touching them with tincture of cantharides, before they are drawn together by sutures.

II. Twisted suture. This is employed when the opening is large enough to permit a view into the trachea. The edges are freshened by cutting out a small wedge of the cutaneous border, above and below; the borders are drawn forward with a hook and detached with a flat-bladed knife so far that they can be brought together from either side without any tension.

III. When there is great loss of substance in the trachea, it is covered with integument from the side of the opening. If the opening is a round one, the wound in the integument is made twice as long. The integument is loosened to the breadth of one inch on either side. The edges are confined by a row of twisted sutures. Then a straight vertical incision one inch and a half long is made in the skin on each side of the suture, at a distance of about three-quarters of an inch, which relieves the tension at once. The side-cuts are filled with charpie. In five or six days the needles are removed and adhesive plaster applied.

IV. When the opening in the trachea is large and the surrounding integument thin, the above procedure will not answer, as the thin borders of the wound afford too few points of contact. An elliptical excision is made, and the edges loosened, and then brought into perfect contact by several suture-pins. An incision two inches long is next made to either side, and the bridge of skin is still further and more thoroughly loosened. Both bridges are then pressed together by their subcutaneous surfaces; on either side a longitudinal cylindrical splint of stiff leather is placed, and two large pins are carried through these and the intervening bridges of skin. The double layer of skin is turned over so as to form a vertical wall to the opening. The splints are not removed until the borders are firmly adherent to each other.

V. Another operation is the transplanting of a flap. Velpeau‡ relates an interesting case of forming a flap and turning it over. This method is best performed, according to Basseran,§ by raising a flap of skin 1″ broad and 2″ long below the fistula, a little smaller above than below, and of sufficient length to readily reach the opening which it is intended to close. The flap should be dissected up with as much connective tissue as possible with it, but without laying bare the cartilages. The flap may then be placed in position in two ways.

1. When the greater diameter of the fistula is horizontal. The flap is folded together so that its tip does not quite reach its root, the cutaneous surfaces being in contact. It is better to unite the tip of the flap to its root by a simple suture. The flap is then turned upwards, but not rolled round, and thus fills up the fistula. In this way the raw surface of the flap is in part directed towards the cavity of the larynx, and in part forms the an-

* *Virchow's Archiv*, Bd. 33, S. 177.
† Die Operative Chirurgie, Bd. 1, S. 503.

‡ Mémoire sur les Fistules du Larynx; and Colombat de l'Isère, 1834.
§ *Journ. Hebdom.*, t. xxxii., xxxiii., 1834, and Schmidt's Jahrb., Bd. 5, S. 207.

terior wall of closure. A long needle is now thrust through the raw edges of the fistula and through the entire thickness of the flap. It must go through the posterior portion of the flap, and not merely between its two opposing surfaces. The flap then lies in the cavity of the larynx. The dressing is completed with ordinary sutures, adhesive strips, and bandage.

2. When the fistula is round, or its longest diameter vertical. Then the flap is rolled together in its entire length, so as to form a plug or cylinder, twisted, and its free end shoved a certain depth into the fistulous opening, no free space being allowed to remain between the raw surfaces.

M. Roux* has successfully pursued a new method. A catheter of a calibre equal to that of the inner fistula is inserted, and the integument brought around it by sutures; union by first intention generally follows, and later the internal laryngeal opening closes up by granulations, to which the presence of the obturator gives rise.

ARTIFICIAL OPENINGS INTO THE LARYNX AND TRACHEA.

A necessity for making an artificial opening into the larynx or trachea arises under the several circumstances which impede the free ingress of air to the larynx, and in which it is possible to remove the obstruction by operation through the opening, or to make an inlet for the air below the obstruction.

In acute cases, and where the opening is to be maintained for a comparatively short time, the operation usually performed, especially in the adult, is that known as laryngotomy, and consists essentially in dividing the crico-thyroid membrane. The cases suitable for this operation comprise acute laryngitis, œdema of the larynx, fracture of the larynx, the maintenance of respiration during the removal of a large or vascular neoplasm by laryngoscopic manipulation, and the extraction of small foreign bodies in the larynx.

The operation is usually an easy one, except in certain traumatic cases, or other cases in which there is a good deal of emphysema. The position of the crico-thyroid membrane is determined by the touch, the patient being either recumbent or semi-recumbent, and the parts rendered prominent by elevation of the shoulders; and a vertical incision from an inch to an inch and a half in length is made in the middle line, so that the middle third comprises the position of the ligament. The ligament is then freed of any overlying tissue not divided in the vertical incision, care being taken not to divide the middle thyroid artery, which may be in the way of the knife, and which is to be held to one side, or otherwise secured, as the case may be. The ligament is then divided vertically, or horizontally, or crosswise, according to the nature of the case. When the opening thus made is insufficient for the purpose required, the incision is carried upwards, so as to divide the intermediate plate of the thyroid cartilage to a certain extent; care being taken to avoid wounding the vocal cords.

In other cases the cricoid cartilage is divided; but it is well to spare this cartilage if possible.

Sometimes it becomes necessary to divide one or more rings of the trachea in order to render the opening large enough for the free play of instruments. Under these circumstances the operation is known as laryngo-tracheotomy.

Tracheotomy may be performed above the thyroid gland, or below it. It is well to avoid this structure whenever it is possible to do so. The operation may be expeditiously performed as follows: The patient being in position, and everything ready, the operator places himself at the right of the patient, and his assistant stands on the opposite side. The skin being made tense by the thumb and fingers, or pinched up into a transverse fold, at the option of the operator, a vertical incision is made, dividing the skin and fascia from the cricoid cartilage to within an inch or so of the sternum. The operator then raises the connective tissue on his side of the incision with the forceps, his assistant doing likewise on the other side, and the fascia is then divided, fold after fold. The veins should be held out of the way by blunt hooks, or, if this is impracticable, should be ligated in two places, and divided between the ligatures. The muscular structures are separated by the fingers and handle of the scalpel, until the trachea is exposed; the fascia being raised and divided in the manner described. The thyroid gland is held upwards or downwards by blunt hooks, according as the operator intends entering the trachea above or below it. If this cannot be done with safety, it is encompassed with two ligatures, between which it is then divided. Any large vessels crossing the thyroid must be ligated first, and then divided in the same manner. During the operation the field must be kept clear by sponging, and moderate hemorrhage restrained by small bits of ice enclosed in a cloth. When the trachea is cleared, and the place for incision is in view, the tube is drawn upwards and steadied by means of a tenaculum, and divided from below upwards as far as may be necessary, care being taken to penetrate the mucous membrane, and to avoid wounding the posterior wall of the trachea. Air rushes through the opening with a peculiar hissing noise, driving the blood and mucus before it. The edges of the opening are now seized with toothed forceps and separated, when the necessary hooks or tubes are introduced. These instruments should be warmed before their introduction.

The abnormal course of the blood-vessels sometimes divided in this operation may give rise to serious hemorrhage. This hemorrhage, even if venous, is by no means always restrained by opening the trachea, and thus permitting re-establishment of the normal circulation, although Trousseau and others have operated hundreds of times without ever being embarrassed in this way. It is therefore advisable, in all instances where delay is not evidently dangerous, to restrain the hemorrhage before opening the trachea. Occasionally the hem-

* *L'Union Médicale*, 1855, p. 129.

orrhage is insignificant, not requiring the slightest delay or the securing of any bleeding vessels. After respiration has become quiet, the necessary operation for which the opening into the trachea was made is proceeded with, or the tracheotomy-tube inserted, as the case may be. It will usually be found sufficient to separate the lips of the tracheal wound by means of a tenaculum introduced upon each side to guide the tube safely; though special dilators have been devised for this purpose.

The edges of the external wound are brought together by strips of adhesive plaster, except at the lowest portion, which is left patent for drainage. A piece of oiled lint is slit and slipped under the tracheotomy-tube, to prevent undue chafing, and the wound covered with a simple dressing. A piece of gauze is confined over the wound by adhesive strips, to protect it from dust and to modify the temperature of the inspired air.

As long as the patient is confined to his room, the temperature should be maintained at about 80° Fahr., and the air kept more or less saturated with steam, in order to lessen the risk of subsequent bronchitis.

A double tube should always be used, the inner tube being the longer. This inner tube requires more or less frequent removal, to free it from inspissated mucus, which adheres to it, at times, in sufficient quantities to impede respiration.

When the tube is permanently withdrawn, the opening usually closes in a few days without surgical assistance.

The lecturer spoke of the occasional performance of tracheotomy for the purpose of inserting a tube and occluding the trachea above and around it, so as to prevent the escape of blood down the trachea in the performance of operations in the mouth and larynx. He exhibited the apparatus devised by Trendelenburg for this purpose. It consists of a tracheotomy-tube which is encircled by a hollow cylinder of rubber, communicating with a tube provided with a stop-cock. Air being forced into this tube, the cylinder around the canula becomes distended into a complete obturator. There is also a special arrangement for administering anæsthetics through the canula. Trendelenburg and one or two other foreign surgeons had employed this apparatus with satisfaction; but the lecturer was unaware of any instances of its application in this country, and had had no personal experience with it.

The lecturer also referred to the production of emphysema after tracheotomy, a complication occasionally encountered, and of which sufficient mention is not made in the books; and he instanced a typical case of the kind still under his treatment, in which a marked emphysema had followed tracheotomy performed as low down as possible, a short time ago, for perichondritis of the arytænoids. On the day of the operation emphysema set in, and by night had extended down to the shoulders and as high as the zygomatic process, lifting the canula completely out of the trachea. An unusually long tube was substituted for the shorter one, and the emphysema began to decline the next day.

ORIGINAL COMMUNICATIONS.

STRABISMUS CONVERGENS:

WITH SPECIAL REFERENCE TO ITS ÆTIOLOGY.

A Paper read before the Northern Medical Association of Philadelphia.

BY S. D. RISLEY, M.D.

(Continued from p. 439.)

DONDERS, finding this almost universal association of hypermetropia with strabismus convergens, could not escape the conclusion that they sustained to each other the relation of cause and effect: "Hypermetropia is indeed the primary anomaly, to be sought for in the structure of the eye, and originally proper to the organ; strabismus is the secondary condition, which does not arise until some years after birth." That hypermetropia is the cause of the deviation finds strong corroborative evidence in those cases seen in the very commencement of the deformity, during the stage of so-called periodical strabismus; for in these the fact that hypermetropia already exists is presumptive evidence that it precedes the deviation, and the additional fact that the correction of the anomaly of refraction removes the tendency to squint seems to leave no room for doubt.

October 10, 1872.—Howard F., æt. 8 years, was brought to me by his parents, with the statement that when he looked at his book, or intently at distant objects, he became cross-eyed, but that when around at play his eyes were straight. The ocular movements were normal in all directions. V = $\frac{3}{4}$ in each eye (Snellen $\frac{15}{XX}$), and he could read No. 1 of Jaeger's test-types no nearer than 6″ to the eye, while had he enjoyed emmetropia he should have been able, at his age, to read it up to 3″ readily. His distant vision was brought up to normal by convex glass of 24″ focal distance. After atropization his vision fell to $\frac{1}{4}$, and the determination revealed total H = $\frac{1}{10}$. I prescribed convex glasses to be worn continually of 20″ focal length ($+\frac{1}{20}$), which more than corrected his manifest hypermetropia. Six weeks later his parents returned with him, that I might see the result of my advice, which had proved entirely satisfactory, as there had been no tendency to squint since the use of the glasses.

The deformity usually commences about the time the child begins to use its eyes for near objects,—*i.e.* from the fifth to the tenth year; although it occasionally occurs earlier than this. I wish to dwell upon this point, so that when the mother calls attention to the fact that her infant "squints" it may not be passed over as a fact of but little moment. The stronger probability is in favor of the deviation being due to ocular paralysis from some intra-cranial cause than of its being a case of simple strabismus.

At first it assumes a periodical character, as seen in the case of Howard F., appearing only when the patient is intently regarding some object,—it may be only when reading or looking at some near object. At this stage either eye is used indiscriminately, while the other moves inwards. If the hypermetropia be not neutralized by the constant use of suitable convex glasses, the squint will generally soon become permanent, presenting all the characters of concomitant strabismus.

Parents bring their children with all sorts of stories regarding the cause of the squint. In looking over my notes I find the following. One child, æt. 5 years, with permanent convergent squint of one year's standing, had fallen, striking the side of his head corresponding to the converging eye against the marble doorstep. The mother says he has squinted ever since. The child had H = $\frac{1}{48}$. Another never squinted until after an attack of measles. Ophthalmoscope shows H = $\frac{1}{36}$. Another with H = $\frac{1}{24}$ had learned to squint at school by imitating a little playfellow. He had H = $\frac{1}{48}$. Many insist upon it that the children were born so. One mother thought the squint was produced by the cradle being placed so that in looking after her, while about her household duties, the child must turn its eyes always in the same direction. A fragment of black court-plaster worn on the temple corresponding to the squinting eye, for the purpose of "drawing the eye back," had failed to effect a cure: so she came "to have them straightened." The child had H = $\frac{1}{36}$. There is some plausibility in its occurrence after an attack of either of the exanthemata, first admitting the existence of hypermetropia; for the accommodative power must participate in the general exhaustion following a fever, and thus the tendency to excessive convergence would be increased in proportion to the inability of the ciliary muscle to perform its accustomed task. The idea of imitation seems to have gained some credence even among physicians. I am not prepared to deny that strabismus is ever thus produced; but it is more probable that a common cause has produced it in both parties,—the imitated and the supposed imitator. Hypermetropia is very prevalent, and frequently hereditary. I have myself repeatedly seen several members of the same family hypermetropic. It is in such instances that we would expect to find more than one member with squint, a common cause inducing it. That such is the case I have had repeated opportunities for verifying.

How far the association of a non-squinting hypermetrope with one who squints may influence a tendency to deviation already existing, I am not prepared to say, but can readily conceive how it might determine a squint which, without such influence, might never have existed.

At the onset of the affection the shortening of the internal recti muscles seems purely dynamical; but later, after the deviation has become permanent, one eye being used invariably for fixing, it passes over into an organic change, hypertrophy resulting from the excessive task to which they are subjected, and the shortening becomes permanent; not of one but of both internal recti.

From this fact of organic shortening of both muscles we would be led, *a priori*, to anticipate but little from any treatment for its cure save from tenotomy, and that not of one but of both muscles. That both muscles—that of the undeviated as well as of the deviated eye—should be shortened, might be anticipated. In the first place, the hypermetropia can be best overcome by a strong convergence, on account of the increased power of accommodation thus afforded: moreover, in order to throw the image as far as possible from the macula lutea of the deviated eye, that, falling upon a more peripheral and less sensitive portion of the retina, it may the more readily be suppressed, the object is held to the side corresponding to the deviated eye. From these two circumstances the internal rectus muscle of the fixing eye is also kept in relatively strong contraction. By this effort, too, the degree of deviation of the squinting eye is relatively increased.

So long as the strabismus remains as alternating squint, the acuteness of vision is not lowered; but no sooner does the deviation become constant than the affected eye begins to suffer a diminution of vision, which rapidly becomes more and more marked. In a child between five and six years old who had begun to squint one year before, I found the acuteness of vision reduced to one-half. One month after tenotomy, however, the vision was normal in each eye.

This diminution may go on from a mere shade of difference between the eyes to an almost total loss of vision. There are some things about this loss of vision in the squinting eye which are somewhat contradictory. After the acuteness has become considerably diminished, it will be found difficult to induce the patient to fix an object with the deviated eye when the other is covered, or, when attempting to fix with it, he will be unable to recognize the largest type at any distance. He persistently refuses also to see double images even of a bright object, as a lighted candle. From these experiments one would be led to conclude that vision was entirely abrogated. That such is not the case, however, I am led to infer from the fact that we do not observe in such persons the peculiarities of one-sided vision. The man who has had one eye extirpated feels sadly the loss of the member, and complains that he must turn himself in order to see things on the side corresponding to the lost eye. He will tell you he never feels safe at the street-crossing, lest a team drive upon him unawares. Strabismic patients never make like complaints, however, and seek surgical aid for relief from the deformity alone. There is no discoverable organic change in the retina in these cases. That we can sharpen our senses by a strict mental attention is a fact of which we see constant proof, and that by a psychical exclusion we can also set aside physiological sensibility is well illustrated in these cases of strabismus. As in the case alluded to above, however, after the axis of the deviated eye has been forced by tenotomy to resume its parallelism, so that the image will once more fall upon the macula lutea, the acuteness of vision may be greatly improved, or, if the exclusion has not been of too long standing, may even regain its normal sharpness.

A case occurred to me which illustrates forcibly this point:

H. M., æt. 19, had had tenotomy performed on both sides in 1869 for the cure of strabismus. I saw her for the first time a year and a half later. She then had a permanent convergence of the left eye, measuring $3\frac{1}{2}'''$, and vision of $\frac{1}{10}$, while in the right or fixing eye there

was for distance a normal acuity of vision. The patient stated that for a few months after the operation the eyes remained "straight," and then the deformity rapidly returned, but changed sides, the opposite eye becoming the deviated one. At the time of the first operation the left or fixing eye was the good one, while she was "almost blind" in her right.

She had but little manifest hypermetropia ($H = \frac{1}{48}$), although, after thorough paralysis of the accommodation, a total hypermetropia of $\frac{1}{12}$ was revealed in each eye. Tenotomy on both sides was repeated, and positive glasses of $\frac{1}{12}$ given to be worn constantly, with instruction to exercise the left eye alone for an hour or two daily on the finest print that could be recognized. Three months later there was no return of the convergence, and the acuteness of vision had come up from $\frac{1}{10}$ to $\frac{3}{4}$.

In strong contrast to this is the case of an Irish girl, æt. 17, who consulted me in June, 1871, for marked convergence of the right eye which had lasted since early childhood. She came seeking relief from the deformity. She had $H = \frac{1}{10}$ in the deviated eye, and was only able to count fingers with difficulty at a few feet with a correcting glass. In the fixing eye there was normal acuity of vision, with the glass, which corrected the existing hypermetropia.

I performed tenotomy, which corrected the deviation; but a year later there was no improvement in the acuteness of vision in the formerly deviated eye. How faithfully she had obeyed my injunction to exercise the eye I cannot say. There was no longer any tendency to squint.

Strabismus should not be regarded as a mere deformity, and the operation for its relief as for a mere cosmetic effect. Permanent strabismus means, sooner or later, the more or less complete loss of vision in one eye; hence it is a condition demanding treatment as positively as an iritis or keratitis, and it should be thus represented to patients, who invariably regard it only as an unfortunate deformity.

The question naturally arises here, When should the operation be performed? I think the sooner after the development of permanent strabismus the better; for why should we wait until the sharpness of vision is diminished? There are other questions involved, however, which have caused some to hesitate, and even to advise the parents to have nothing done at present, but after a few years, when the child has gained in years and discretion, to return. It is true that after the operation the same cause is acting to reproduce the affection as was active at first in its production; and that there is a marked tendency to its recurrence we saw in the first part of this paper. The only way, in fact, to insure against the return of the deviation is to correct the optical defect which is so active in its ætiology, by prescribing proper glasses. Now, there is an obvious difficulty in the way of prescribing glasses for young children; yet in the case of Howard F., æt. eight years, with strabismus alternans, I did not hesitate to do so, rather than to allow the deviation to become permanent. In one case I operated at the fifth year. The deviation, although of but one year's duration, was fast becoming permanent, and already there was diminished sharpness in the deviated eye. The parents, however, were informed of the liability to the return of the deformity, and were carefully instructed to bring the child back if any tendency to relapse should at any time manifest itself. The acuteness of vision in the deviated eye might be preserved by persistent daily use of the deviated eye, compelled by keeping the opposite eye closed or by paralyzing its accommodation repeatedly by atropia. Binocular vision is so important that too much cannot be done to preserve the function of both eyes intact. I would not hesitate, then, to operate even earlier than the fifth year, if a case of permanent strabismus should present itself at so tender an age.

After what has been said of the cause of strabismus, the justice of my remarks regarding the claims to unvarying success made by some, and the rude denunciation of those who were sufficiently honest to acknowledge failures, I think will be no longer doubted. Hypermetropia was not yet understood; and that there should be no return of the deformity in a certain number of cases while the original cause still existed, I am scarcely willing to admit. That the deviation is frequently reproduced, we have abundant evidence in the experience of the earlier operators. I have also had frequent opportunities to observe the recurrence of the affection in cases operated upon in this city.

The case of H. M. is an illustration of this. Out of eight cases from a charitable institution in this city, operated upon at one sitting, no regard being paid to the optical condition, but one has proved at all satisfactory. In six cases, taken from my private practice, which I have been able to follow up for six months, for whom glasses were prescribed, in but one is there any tendency to a return. This patient was a lad of fourteen years, who, in consequence of the gibes of his schoolmates, persistently refused to wear his glasses. Six months later the deviation was as great as before the operation, which at first had been perfectly successful.

In cases of permanent convergence, the degree of hypermetropia should be carefully determined, with a view to correction by means of spectacles; afterwards, tenotomy of one or both internal recti. No new principle in the operation has been enunciated since the days of Stromeyer. Its details have been rendered less cumbersome, however, and experience has taught us how to regulate the extent of the operation.

The object to be attained is to cut the tendon of the muscle as near its insertion in the sclerotic as possible, and secure its re-attachment at a point farther back upon the globe,—the extent of the retraction to be controlled by the extent of laceration in the capsule of Tenon.

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COFFEE AND SULPHATE OF QUINIA.—M. Briquet considers the common practice of administering quinia in coffee open to much objection. He alleges that the tannin in the coffee coalesces with the quinia, forming a tasteless and insoluble and almost inert salt,—the tannate of quinia,—from which the stomach has as much difficulty in extracting quinia as from powdered bark. It is, he thinks, one of the worst preparations of quinia.

TWO CASES OF RETAINED FŒTUS SOME MONTHS AFTER THEIR DEATH,

AND TWO CASES IN WHICH PLACENTAS WERE RETAINED A GREAT LENGTH OF TIME AFTER THE EXPULSION OF THE FŒTUSES.

BY E. P. ALLEN, M.D.

IN the month of November, 1845, I was summoned to see Mrs. M. C., who was reported to have lock-jaw, or tetanus. I learned from her husband that she was thirty-five years of age, and the mother of four children, and had until two months since enjoyed comfortable health, though never very strong; that seven months before, she had become pregnant, without unusual symptoms until she had gone five months, when she felt unwell for a few days, and in a short time all motion of the child ceased. Her breasts became flaccid, and her abdomen subsided to its natural size. Her health became poor, and she consulted a physician, who told her that her child was probably dead, and she would be in labor soon, and get through without trouble, and then she would soon regain her health. Labor did not come on, and she steadily declined. Her jaws began to be stiff two days before, and steadily grew worse until that morning, when they became immovable. They could not be separated at all by any force safe to use; yet she had little pain, though an uncomfortable stiffness was felt. She was thin in flesh, and countenance pale and anxious; appetite poor, and bowels constipated. No one would have suspected from her appearance that she was pregnant of a seven months' child, or even of a five months' child. She was ordered to take an ounce of castor oil to unload the bowels, which she was able to suck through a cavity made by extracting a tooth some time before. The oil produced a copious evacuation in four or five hours, and was followed by labor-pains, which soon became regular, and she was delivered about two o'clock on the following morning of a fœtus apparently of about five months' growth, though greatly shrivelled and emaciated. The liquor amnii was quite dark-colored, but had little or no fœtor.

I have never been able to satisfy myself of the cause of the death of the fœtus.

The mother recovered slowly by the use of tonics and laxatives; though it was four weeks before she had the free use of her jaws. They were firmly closed ten days, when they gradually relaxed. She has since borne children.

I suppose the physiologist would assign the cause of the tetanus to the settling of the uterus into the pelvis, and with its enlarged dead weight producing undue pressure upon the nerves in the pelvis, causing a reflex action of the motor nerves.

Case II.—On the 25th of last November I was called to see Mrs. C., who was threatened with an abortion. Mrs. C. is thirty years old, and had always been regular as to time with her menses, though suffering slightly from dysmenorrhœa up to the 1st of October, since which they had not made their appearance. This being the first time she had ever missed, she was satisfied that she was pregnant, and, from the pains felt in her back and low down in front, and their paroxysmal character, believed she was about to miscarry. Her pulse was quick, skin hot, and she was evidently suffering a good deal of pain.

She was ordered to take a quarter of a grain of morphine every three hours, and cold acidulated drinks, and to keep her bed until she was free from pain. The next day she was nearly free from pain, but complained of feeling sore all over, as she expressed it. She was advised to keep her bed until she felt well, which was strictly followed four or five days, when she felt well enough to be up and mingle with her friends. I heard no more of her until the 13th of March, when I was called to see her, and found her again in pain, and some show evidently about to miscarry. Morphine was ordered, and rest, as before. In two hours she was free from pain, and felt so well that she took a short ride in a carriage, contrary to my advice, the same evening; yet she remained well until the evening of the 16th, when she was suddenly taken with severe labor-pains. I saw her at two o'clock on the morning of the 17th, and found her in active labor, with the os uteri so much dilated that I thought it useless to attempt to arrest the labor. Her pains continued, and were quite severe until four o'clock A.M., when she was delivered of twins, the placentas following soon after. The fœtuses appeared somewhat shrivelled, and did not look to be more than of six or seven weeks' growth, and were about the size I should have supposed them to have been at the time of the patient's first sickness, which was three months and twenty days before. The membranes having remained intact, there was no fœtor nor decomposition. No perceptible influence on the health of the patient was observed, excepting an occasional feeling of weakness, which lasted but a short time.

Dr. Ely, of Burlington township, related a case of retained placenta last September before the Bradford County Medical Society.

A woman miscarried, and the fœtus appeared to be of about four months' growth. The doctor was not present at the time; but, the placenta not coming away, he was called some hours after to remove it. On making an examination, he found the umbilical cord had been broken off within the uterus, and the os quite firmly contracted, and there was little or very slight hemorrhage. He concluded not to attempt to remove it, as there were no urgent symptoms. Supposing that the uterus would after a little time contract upon its contents and expel it, he directed the family to send for him if pains came on, and left. He heard no more for about five months, when he was called to the lady, who was in labor. In a short time he delivered her of an after-birth fresh in appearance as if immediately preceded by the birth of a child. The parts attached to the uterus were evidently not separated until the labor for its expulsion took place. No unusual fœtor was observed, nor had there been during the carrying the retained placenta, excepting a few days after the expulsion of the fœtus. The woman made a good recovery. Dr. Ely believed the expulsion of the placenta was at the full period of gestation; and had not the fœtus, from accidental or intentional causes, been previously expelled, it would have been born at that time.

Dr. G. F. Horton, of Terrytown, related a case at the same time where a placenta was retained several months without hemorrhage or much inconvenience to the patient, but could not say that it was carried to what would have been the natural period of gestation.

The writer is well aware that fœtuses are occasionally carried a few days, or perhaps two weeks, after they are dead, and that placentas are retained after abortions a number of days; but it is very unusual for them to be carried months, as in the above cases.

ATHENS, PA., April 5, 1873.

BLEEDING IN CERTAIN CASES OF PUERPERAL ECLAMPSIA.

BY RICHARD A. CLEEMANN, M.D.

IT is evident to the reader of current medical literature that bleeding, as a remedy in disease, is emerging in some degree from the disrepute into which it has of late years so deeply fallen. Especially is this the case where are concerned certain morbid conditions, of which the pathology is doubtful, but which have among their characteristics sudden and profound brain-disturbance. In such a category may be placed the puerperal state marked by the occurrence of convulsions; and three cases of this are recorded below as having a bearing upon this renewed advocacy of the lancet.

Case I.—I was called up on the night of May 24–25, 1868, to visit a primipara, said to be suffering terribly in her labor. The screams of the unfortunate woman—so loud as to have attracted two policemen under her window—were heard as we approached the house. Entering the bedroom, I found a young irregular practitioner of the neighborhood tugging at his forceps, applied over the child's head, which already occupied the cavity of the pelvis. The patient was a small, pale, black-eyed woman, of nervous temperament. She was attempting with great vigor to toss herself about, while uttering the loud cries already alluded to. It was said she had been seized with "spasms" before my arrival, though now I observed none of the consecutive symptoms. To shorten her intense suffering, I determined to use my own forceps at once, but had only time to adjust one of the blades, when, a strong contraction of the uterus taking place, the head of the child passed the vulva, the body and limbs soon following. After a certain time the first-called accoucheur attempted the delivery of the placenta—as I noticed too late—by traction on the cord, which ruptured just as the poor woman, with a loud cry, fell into a frightful convulsion. When the muscular contortions had ceased, the afterbirth was removed without difficulty by the hand introduced into the cavity of the uterus. Scarcely was this accomplished when, the patient starting wildly up, the blood poured out of the vagina like water from a hydrant. This was, however, the end of the trouble; the contraction of the uterus was soon assured, and the patient left quiet in bed. I did not see her again for several months, but learned that she recovered without a bad symptom.

The probable determining cause of the spasms in this case was uterine irritation, which ceased with the emptying of the womb,—quickly and easily accomplished at this period of the labor. The apprehension of cerebral effusion, aroused by the mental excitement, vanished with the opportune flooding instituted by nature.

Case II.—I was summoned in great haste at eleven A.M., January 21, 1871, to see Mrs. McT., multipara, with the explanation that she was suddenly attacked with convulsions, having been delivered the night previous, after an easy labor, of a child at full term. My patient proved to be a strong-looking woman, of nervo-sanguine temperament, of about twenty-five years of age. Three paroxysms of convulsions had occurred before my arrival, and she now lay comatose. Almost immediately another spasm of considerable violence, accompanied by frothing at the mouth, took place, and then another. The congested skin of the patient and the much-distended veins, that were like black tortuous cords twisted underneath, suggested dangerous vascular repletion. Her arm was tied up and a lancet plunged into a vein at the flexure of the elbow; the prick of the instrument caused a start from the patient, and a full stream of blood spurted forcibly from the aperture,—twenty ounces, judging by the eye, being soon abstracted. Placing a finger on the wound, I was watching the effects of the measure, when another convulsion took place: the finger was at once removed, but no blood flowed till the muscular disturbance had ceased, when again a full stream poured out; after about ten more ounces of blood had been allowed to escape, the patient became quite blanched in appearance, and the diminished force of the jet of blood showed a decided influence on the circulation. During the following one and a half hours the condition of the patient improved, and she seemed about to return to consciousness, when another convulsion supervened. She had had twenty grains of bromide of potassium in two doses meanwhile, and now a cloth saturated with chloroform was held over her nostrils till the muscular movements were discontinued. In a short time another spasm occurred, and before long another, and again another. A half fluidounce of turpentine in enema was now given. After about ten minutes had elapsed, the patient gave signs of great discomfort, moving her limbs and endeavoring to change her position: this uneasiness was relieved by an evacuation from the bowels, which was soon followed by another. After this there were no more convulsions, and the patient gradually regained consciousness. She experienced at first transient headache, and twitching of the hands was noticed. She was oblivious not only of the supervention of the eclampsia on her labor, but even of the birth of the child, which, as above stated, had taken place many hours before their occurrence. The next day I found my patient very cheerful, and in excellent condition; she progressed favorably in every way, and her breasts filled with milk in the usual time.

The appearance of her husband in a drunken condition immediately determined the convulsions of the last patient, a mental impression the disturbing effects of which might be expected to be transient, and demanding little treatment now that the labor was completed. The venesection practised, as stated above, was directed against the marked vascular repletion, which threatened dangerous congestions; and the quickly fortunate termination of the case shows that such a measure was not contraindicated by extreme hydræmia. In regard to the effects of the bleeding on the muscular disturbance, it may be plausibly said, according to the ingenious theory expounded by Prof. Joseph Carson (*Am. Jour. Med. Sci.*, April, 1871, and this journal, number for November 15, 1871), that the venesection was carried too far, and, by predisposing to syncope, was chiefly responsible for that second series of convulsions which occurred one and a half hours after the first was completed; but, as we see constantly the most violent eclampsia in children and epileptics, followed by no immediate bad effects, the criticism, in view of the greater danger of cerebral or pulmonary extravasation, is of little value. The happy sequence of the exhibition of the enema of turpentine, an arterial stimulant, lends its support to this view of the agency of syncope in the mechanism of convulsions; and in this connection it is worthy of remark that the failure of the blood to flow from the open vein during the muscular contortions, immediately succeeding the

first bleeding, is opposed to the generally received description of puerperal eclampsia, as regards the circulation, namely, that the "carotids beat inordinately," and that the pulse "increases in velocity as the intensity of the fit becomes greater." (Ramsbotham.)

Case III.—I was consulted January 27, 1872, by Mrs. H., a native of France, of sanguine temperament, aged about 38 years. She had been married twenty months, menstruated once afterwards, then had an abortion at three and a half months. The catamenia at the succeeding period were normal, but at the next nisus there was profuse hemorrhage, which recurred after three weeks. At the following three periods the menses were natural, the flow being scanty at their last appearance.

June 22, 1872.—It was calculated that she was now near the close of the seventh month of pregnancy. She came to see me about œdema of the feet, and I noticed that her hands and face also appeared puffy. Her calls to urinate were frequent, with a more copious discharge than usual, according to the patient's own estimate. Inquiry developed that there were also stiffness of the muscles, sensations of fulness in the head on stooping, and wakefulness; but these subjective symptoms occasioned but slight annoyance; the appetite was good, and the bowels were regular. Her urine, tested with heat and nitric acid, gave a small deposit of albumen, not sufficient, in an ordinary-sized test-tube that had been half filled with the urine, to occupy the convexity of the end. During the succeeding five days the condition of the patient did not improve, malaise and wakefulness occasioning more distress. After this time (on June 25) the patient complained of pain in the back of the neck and shoulders, and in the throat, also of burning sensations in right and left hypochondria; lying down brought on coughing, but the breathing was not embarrassed, and a clear note was yielded to percussion; the respiratory murmur was, however, of higher pitch than normal. The patient seemed to suffer intensely, and was very desponding, declaring incessantly that she should die. Remedies afforded but little relief, and at about 9 o'clock P.M. she fell into convulsions. Two paroxysms occurred before I reached her, within an hour, and at the expiration of that time another took place. An eminent obstetrician, who had been sent for in my absence, arrived shortly after myself, and gave me the benefit of his advice. Venesection was decided upon, and about twelve ounces of blood were taken from the arm. The operation was rather unsatisfactorily performed, owing to the thickness of the integument which obscured the position of the chief veins. The patient became subsequently less restless and more conscious, but after about five hours' interval (at 4.40 A.M., June 26) another violent convulsion took place, in which the patient's tongue, notwithstanding precautions were taken, was very much lacerated, the wound bleeding quite freely. She rallied once more after this, and was complaining from time to time that she was smothering ("*J'étouffe*"). Finally at 8.15 A.M. there was again muscular contortion, in which the patient's life ended, blood now issuing copiously from the nostrils.

In the treatment of this case, acetate of iron in the form of "Basham's mixture" was given when relief was first sought; afterwards jalap and bitartrate of potassa were also prescribed. On the day of the supervention of the convulsions, before their occurrence, three stools had been obtained, but, as they were feculent and it was desired to eliminate some of the water of the blood, elaterium was exhibited; the hydragogue was, however, rejected from the stomach, an evacuation from the bowels being afterwards procured by enema. Compound infusion of senna was then resorted to. For the pains an anodyne liniment was used. The bleeding practised after the convulsions occurred has already been alluded to; in addition, at this time, suppositories of belladonna and assafœtida were administered, and carbonate of potash and chloric ether given.

The immediate cause of death in this case seems to have been pressure upon, or laceration of, the medulla oblongata, the congestion of the upper portion of the spinal contents, betrayed by pain in the neck, shoulders, and sides, as in beginning cerebro-spinal meningitis, advancing till that great nerve-centre was fatally involved. Accepting this causation, it is thought that a large and rapid bleeding such as that practised in Case II. would have been of immense advantage. The surface of this patient did not present the same evidences of vascular fulness as that of the one in the case just alluded to; but this may have been owing to her thick white skin, so commonly found among the French, which would mask sanguineous plethora to the eye. Her subjective symptoms of wakefulness and fulness of the head on stooping pointed to that condition.

Oulmont on Treatment of Mercurial Tremors and Paralysis Agitans by Hyoscyamine.—Dr. Oulmont (*Gazette des Hôpitaux*, Jan. 11, 1873) considers that, although the results obtained by the treatment of neuralgia by hyoscyamine are satisfactory, they are neither more marked nor more rapid than those obtained by the use of opium or belladonna. In nervous diseases characterized by trembling, such as mercurial tremors, and paralysis agitans, marked benefit attends its employment, relief or cure being effected by it after all the other usual remedies, such as iodide of potassium, tonics, electricity, sulphurous baths, bromide of potassium, opium, etc., have failed. Four cases of tremors, treated with hyoscyamine, were cured, and two relieved; and two cases of paralysis agitans were relieved. In mercurial tremors he begins with a dose of two or three milligrammes of hyoscyamine daily, and gradually raises it, notwithstanding dryness of the mouth, etc., to twelve, or even seventeen, milligrammes daily. As the trembling ceases, the dose is gradually diminished. In paralysis agitans he gives six milligrammes daily, at first, and gradually raises the dose to ten.

Little on the Use of Digitalis in the Failing Heart and Delirium of Acute Diseases.—Dr. Little (*Irish Hospital Gazette*, Jan. 15, 1873) recommends the use of digitalis in febrile cases in which stimulants are either not well borne or are contra-indicated, as, for example, in most cases where renal affection is present. He has given it in more than twenty cases, including six of typhus and one of rheumatic fever, the remainder being cases of enteric fever. He usually gives half-drachm doses of the tincture every three or four hours, rarely every hour, and discontinues the medicine when the pulse falls to eighty. Along with the digitalis he gives wine and brandy. In one case of rheumatic fever where stimulants could not be borne, he used tincture of digitalis alone. After several doses nausea occurred. The tincture was therefore discontinued, and a hypodermic injection, composed of one-eightieth of a grain of atropia, one-fortieth of a grain of digitalin, and one-fourth of a grain of morphia, was substituted. The patient eventually recovered.

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SATURDAY, APRIL 19, 1873.

EDITORIAL.

GRATUITOUS ADVICE.

THE letter signed "Struggling Practitioner," which appeared in our issue of April 5, contained some forcible truths, which the profession would do well to ponder. We have a few words to say at present in support and in extension of our correspondent's views.

He is perfectly right in stating that a great many persons become beneficiaries of charitable institutions who are well able to pay for medical advice. For the last twenty years we have observed this evil steadily growing, with the increase in the number of these establishments. As a matter of course, this is the case with the dispensaries from which the college clinics are fed; for all who come there must be attended to, so as to accumulate material from which to cull what is suitable for exhibition before a class. These, however, are not charities in any strict sense of the term; they are only such incidentally, and for a purpose.

But there is between institutions of the purely charitable class a certain rivalry, not as to the amount of actual good done to the deserving poor, but as to the number of cases attended, the number and brilliancy of operations performed, etc. An "interesting case" is too often admitted on the free list, to the exclusion of one of real suffering and destitution which presents no chance for trying some new method, or for great surgical exploits. This is all wrong. The generous offerings of the public should be applied to the relief of poverty and distress; and those patients who can pay for attendance should be required to do so.

Again, there are many private practitioners who give their services to those who are well able to pay, and who would do so if they were rightly dealt with. We allude to servant-girls, mechanics, and others in the lower ranks of life. These people indulge in many luxuries of dress and amusement, but expect to have what medical attendance they need either gratis or for a nominal sum.

Another point we touch upon with some apprehension lest we should be misunderstood. The relation between physicians and the clergy has never been clearly established. There is a generally prevalent idea that medical services are to be rendered gratuitously, as of right, to members of the latter profession. And yet it is among clergymen that quacks and quack medicines have ever found ready and willing patrons and endorsers. In large cities, at least, the pecuniary position of the clergy as a class is more comfortable than that of physicians as a class. And we cannot but think that they ought to decline to lie under obligation to a body of men so largely drawn upon for charity as medical men are.

All these things would be, in our humble opinion, rectified by a little common sense, thoroughly carried out. Let every physician, whether in a public capacity or in his private practice, look upon his services as having a definite marketable value. Let him consider that those who seek his services ought, if they can, to pay for them, and if they cannot, to receive them as charity. He may, if he sees proper, decline to charge his clergyman, or any other friend, for services rendered; but no one can claim medical advice from him, any more than he himself can demand tea or coffee from a grocer, or meat from a butcher, without offering a due equivalent.

A DIFFERENT THING.

OUR esteemed cotemporary, the *Boston Medical and Surgical Journal*, in its issue of April 10, has the following item:

"NOT AMERICAN THIS TIME!—'It has just come to light,' says the *Lancet* of March 22, 1873, 'that during the last few years a large trade has been going on in forged diplomas purporting to be from the *German* University of Marburg, no less than forty persons in this country having purchased the worthless documents.'"

This, we submit, is quite a different thing from the "American" business of diploma-selling, which

we and others have sought to destroy. Its effects, indeed, are the same, in that unqualified persons are furnished with the means of imposing on the public. But it is a mere matter of forgery: the genuine diplomas of the University of Marburg, a highly respectable institution, are imitated.

Obviously, in this case the makers and sellers of the spurious diplomas on the one hand, and the buyers and users on the other, are the guilty parties. The injury falls on the University, whose genuine certificates must depreciate in value, and on the public, who are led by the false papers to repose confidence in their holders.

Far otherwise was it in the case of the bogus colleges in this State. Here the authority of the legislature was invoked to establish and to sanction institutions which, for a mere pecuniary consideration, issued diplomas which, though genuine, were valueless. Every medical school in Pennsylvania, and in fact in the United States, has suffered in standing, every "American diploma" has become a thing of uncertainty, open to more or less suspicion; and yet the evil has been far more difficult to deal with, and has not yet been wholly reached.

SOME SANITARY FACTS.

WE would call attention to a few curious facts, which are perhaps susceptible of some explanation which has not, as yet, occurred to us, in regard to the mortality of this city.

Notwithstanding the severity of the winter, the death-rate has been uniformly and markedly lower, week by week, than during the corresponding months of 1871–2; and this in a degree, it seems to us, much greater than can be accounted for by the variolous epidemic of the winter before last.

Again, while the interments for the week ending April 5 were 332, the number fell to 256 for the ensuing seven days. The deaths from consumption, in the latter period, were but 28 to 63 in the former; a diminution of over 50 per cent. The deaths from other diseases of the respiratory organs fell from 48 to 33; a diminution of nearly 32 per cent.

Another point which strikes us as singular, although it may be that it is the rule in other cities also, is the large number of deaths ascribed to diseases of the brain and nervous system. The average for thirty consecutive weeks was 46; the smallest number having been for the week ending October 19, 1872,—30, and the largest for the week ending March 15, 1873,—71.

These facts have happened to attract our notice casually, and are perhaps by no means the most remarkable of those which a closer study of our vital statistics would develop. We should be very glad to think that the whole subject was under careful investigation here, and that the result might be of benefit to the public welfare.

CORRECTION.

IN the report of Prof. Gross's clinical lecture on lithotomy (page 420 of this volume) the following corrections made in the proof arrived too late to be made in the published report: When sounding the patient, instead of "perfectly nude," read "the lower part of the body should be nude;" and, for "the bladder should be full of urine," read "it should contain three or four ounces of fluid."

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

SEMI-MONTHLY MEETING, March 26, 1873.

Reported by JAMES S. BAILEY, M.D.

DR. ALBERT VAN DERVEER, PRESIDENT, in the chair.

DR. CHARLES S. HOYT, Secretary of the Board of Public Charities of the State of New York, spoke on the subject of the *care of the insane*, and remarked that the census report had not been reliable as to the number of insane people in the country, which had been shown by the census of insane taken in two or three instances by boards of public charities.

It was found in 1871 by Dr. Hoyt that the total number of insane in this State was 6775. Of these, 1582 were in the custody of friends, 1093 in State institutions, 312 in private institutions, 3552 in city and county poor-houses, and 161 in institutions in other States. In Albany County the number of insane is 223, or 1 to 551 inhabitants,—a larger proportion than any other county, except Oneida, New York, and Kings. Of these, 66 are in the county poor-house and 105 in State institutions, the rest being scattered in private institutions, taken to other States, or retained in the custody of friends.

It has been a matter of interest to find how many have become insane during the year. There have been 761 recoveries and 502 deaths among the insane of the State. By deducting from the total number of insane it is found that 1678 new cases of insanity have occurred, or 1 to every 2612 of population.

The circumstances under which the insane have recovered are largely in favor of hospital treatment. Of 761 recoveries only 43 were of those under the care of friends. It was urged on physicians to send insane patients as soon as possible to the asylum, and also to try and remove the prejudice existing against these institutions, which is largely due to lack of information.

The charges that have been made from time to time are for the most part unfounded. Those against Bloomingdale are shown to have been entirely malicious. The

hope of recovery diminishes as time advances,—a large proportion of recoveries being within a year.

It was urged that this county could best take care of its insane by building an asylum of its own, and that this would be more economical. It costs from $20 to $35 to transport patients to distant institutions, which sum would pay the interest on the cost of building.

There are now 66 insane in the county poor-house because of lack of accommodations elsewhere; and they ought not to be deprived of advantages which the others enjoy. Epileptics, too, are a dangerous class to have at large, and for them there is no public provision. He thought that the cost of maintaining 250 patients would be about three dollars a week, in an institution having a large vegetable farm attached. This is what is paid by the county for patients at the Willard Asylum. Mr. Hoxsie—overseer of the poor of the County of Albany—said that we have 102 patients in the Willard Asylum, and 50 or 60 whom he would be glad to send there if there was room. A number of supposed hopelessly insane sent to Willard Asylum, when first established, had been returned cured. He spoke highly of the care given there. The supervisors of this county decided not to build an asylum, on account of the expense, but they had appropriated $35,000 for this year's care, the largest ever set apart. We shall never have a less number; and it would not take many sums of this amount to erect a home asylum. It might, too, be made remunerative by taking from other counties. The accommodations in the State asylums are entirely insufficient, as shown by the fact that they are crowded, and many patients are now in other States or in the custody of friends.

Dr. James S. Bailey reported a case of *poisoning by aniline*. A workman in the employ of the Aniline Company undertook, contrary to the advice of the foreman, to open an iron cask containing aniline oil and arsenious acid. The gas formed by the intense summer heat was liberated, and, being inhaled, caused asphyxia. He was carried home in an insensible condition, and remained so for fourteen hours, and he was prostrated for two weeks by a bronchial affection caused by the irritation which the gas produced in the air-passages.

In 1868, Professor Wirtz, of Paris, while demonstrating the properties of aniline as a coloring-matter before his class, applied heat, and on inhaling the fumes fell senseless, and immediately expired.

Dr. James S. Bailey also reported the history and post-mortem appearances of a case of *rupture of the œsophagus* occurring near the cardiac orifice of the stomach, causing collapse and death in twenty-four hours from its occurrence. In this case the accident was probably due to a violent fit of vomiting. Substances swallowed passed into the cavity of the chest through the fissure.

The lesion in a sound œsophagus is a rare one. Von Oppolzer reports having seen but one case.

Dr. Albert Van Derveer reported the following interesting case of *pyelitis*.

Mr. C., æt. 45; sailor; exposed to great hardships from boyhood. Complained of nausea and vomiting, and pain in lumbar region; difficulty in urinating, and a frequent desire to do so night and day, but passing but little at a time. Respiration was frequent and labored.

Examination of urine revealed one-third albumen, with an abundance of pus-corpuscles.

Post-mortem made five hours after death, in order to enable the friends to transport the body a distance for burial. Body much emaciated. There were strong pleuritic adhesions extending over the entire surface of both lungs, evidently of long standing. Lung-tissue healthy. Heart normal. Liver somewhat enlarged, pale, and fatty. When the peritoneal coat is torn off, portions of the liver follow, giving it a granular look; the tissue is easily torn. Spleen and pancreas, stomach and intestines, normal.

Kidneys.—Right one firmly held in lumbar region by adhesive inflammation of surrounding cellular tissue; with difficulty removed; appears large, full, and distinctly fluctuating. Ureters very much enlarged and thickened; upon section a pus-like fluid freely escapes. The kidney measures six inches in length, four inches in width, and three inches in thickness, and weighs twelve ounces. No fat or tissues left attached to capsule; capsule firmly adherent to the small portion left of the cortical substance. The tubular part seemed completely occupied by from twelve to fifteen distinct abscesses, and these seem to have destroyed particularly the pyramids, occupying their places. There is a well-defined wall existing between most of the abscesses, all of which have their exit towards the pelvis of the kidney. Not a well-defined pyramid is left, and but a small portion of the cortical substance remains. Left kidney easily removed; large and of a pale color; two or three small cysts on its surface; weight seven ounces, length six and a quarter inches, width three and a half inches, thickness two inches. Capsule easily removed; cortical surface appearing coarse and granular. Upon laying open the organ, the pyramids were well defined, but appear coarse and congested; the cortical substance also appears congested.

Microscopical appearances of the left kidney, by Dr. Blatner.—The consistence of kidney is soft, and paler in color than normal. The contrast between the cortical and medullary substance is striking. There is a diffuse cellular hyperplasia of the connective tissue near the convoluted urinary tubuli and the Malpighian corpuscles. There are also numberless young cells and some oil-globules perceptible. The Malpighian corpuscles have also become shrivelled.

REVIEWS AND BOOK NOTICES.

Diseases of the Urinary Organs: including Stricture of the Urethra, Affections of the Prostate, and Stone in the Bladder. By John W. S. Gouley, M.D., etc., etc. With One Hundred and Three Wood Engravings. 8vo, pp. 368. New York, William Wood & Company, 1873.

The title of this work is too comprehensive, since it would lead any one to suppose that the diseases of the kidneys are discussed in it, whereas it embraces but a limited number of the vesical and urethral troubles of the male sex only. And it is devoted almost exclusively to the surgical treatment of this class of disorders. A better name would have been "Vesical and Urethral Surgery."

Dr. Gouley has written clearly and well, from a large practical experience; and we have little to say except in commendation of his work. He begins with a tolerably full résumé of facts in regard to stricture of the urethra, its causes, symptoms, and sequelæ. For the diagnosis of this troublesome affection he justly prefers the bulbous or olivary bougie.

We are somewhat surprised at the way in which the endoscope is mentioned, since the reader is not informed as to the extent to which it is used or the value of its revelations. Unless we are much mistaken, this instrument has altogether disappointed the expectations of its friends, and has been laid aside even by those who a few years ago were warmest in its praise.

Dr. Gouley is well known as one of the advocates of "tunnelled" instruments for stricture; and he gives very full directions for this plan, which we believe to have great merits. The idea is to employ a fine whale-

bone guide, which, being carried past the seat of constriction, may serve to lead a metallic instrument, grooved or tunnelled so as to slide along into the bladder. Whether for dilatation, divulsion, external or internal urethrotomy, this method has, in our author's hands, been found practically valuable. All the disorders causing difficulty in urination are quite fully discussed, with the various modes of treating them.

The concluding portion of the book, on stone in the bladder, occupies three chapters. Lithotripsy, lithotomy, and perineal lithotrity after the method of Dolbeau, are well described and fully illustrated. Our author gives a very decided opinion, backed by a larger array of statistics than we had supposed available, in favor of median lithotomy.

We are very glad to welcome this able contribution to American surgical literature. It is not so exhaustive as the treatises of Sir Henry Thompson on Stricture and on Lithotrity and Lithotomy, nor does it pretend to be; but it is a very clearly-written and practical guide, and will be found useful by a large class of readers. Its mechanical execution is very creditable, and it contains remarkably few typographical errors.

THE SCIENCE AND ART OF SURGERY: being a Treatise on Surgical Injuries, Diseases, and Operations. By JOHN ERIC ERICHSEN, Senior Surgeon to University College Hospital, etc. A New Edition, enlarged and carefully revised by the Author. Illustrated by upwards of Seven Hundred Engravings on Wood. 2 vols. 8vo, pp. 781–918. Philadelphia, Henry C. Lea, 1873.

Mr. Erichsen's work, which has now attained a size which necessitates two volumes even for the American edition,—and they are much pleasanter to handle than their enormous single predecessor,—is unmistakably a London book, by a London author, and suited, we may say, to London readers. That it is valuable would be evident merely from the demand which warrants a sixth re-issue of it, despite its many younger and fresher rivals for the favor of the profession. And yet it has never been a very satisfactory book to us, from the diffuseness of its style, and the scanty references given, but above all for a certain lack of spirit.

The author takes up his subjects, discusses them, and lays them down, one after another, with propriety and correctness, but without enthusiasm. He seems to place a good deal of stress upon matters which are not, after all, the essence of surgery,—rather preferring complicated forms of apparatus and procedures which require special appliances. Hence his book would fail to meet the needs of some of our brethren who are out of the way of instrument-makers, and must achieve their triumphs—and noble triumphs they often are—by working out principles with rough and ready tools.

We note that in the present edition the modern researches in pathology, by Cohnheim and others, are mentioned; and the valuable contribution of Dr. Bigelow to the surgery of the hip-joint receives due weight. Lister's antiseptic method is described with approbation. Chloroform seems to be the anæsthetic decidedly preferred, notwithstanding its risks.

Mr. Erichsen does not appear to have adopted the modern views in regard to syphilis. His chapter on venereal diseases is, indeed, the least satisfactory in the book. He thinks that some mercurial treatment is almost always required,—an opinion which we hardly think has many adherents in this country at the present day.

The illustrations which have been added in this edition are very inferior, not only artistically, but as aids to the understanding of the text. For example, the cut on page 488 of vol. ii., of a laryngoscopic examination, is incorrect in almost every particular.

We have found much fault, but honestly, with this work. We do not think it can be accepted as a cyclopedia of surgery. And yet it is a book which every surgeon who has a library will do well to buy and to consult, as containing, in spite of its defects, the results of the experience in hospital and private practice of one of the leading men of the day.

TEXT-BOOK OF PHYSIOLOGY: General, Special, and Practical. By JOHN HUGHES BENNETT, M.D., F.R.S.E., Professor of the Institutes of Medicine or Physiology, and Senior Professor of Clinical Medicine, in the University of Edinburgh, etc., etc. With twenty-one Photo-lithographic Plates. Small 8vo, pp. 606. Philadelphia, J. B. Lippincott & Co., 1873.

This may fairly be placed in the rank of "great little books." It is written in a singularly clear and concise style, with no waste of words, and yet is pleasantly readable. A somewhat careful examination of it has satisfied us that it is fully up to the present state of science, and well adapted to the wants of the student, as well as of the more advanced reader.

The work is divided into three parts. Part I., on General Physiology, embraces the Chemistry of the Tissues, General Histology, the Physical and Vital Properties of the Tissues, and Life or Vitality. In Part II., on Special Physiology, are treated Nutrition, Innervation, Reproduction, and Death. Part III., on Practical Physiology, is devoted to Practical Chemical Physiology, Practical Histological Physiology, and Practical Experimental Physiology.

The illustrations, which are on a somewhat small scale, are very good. They are massed together at the end of the volume, with explanatory pages opposite to each plate. This arrangement, as well as the photo-lithographic method, was adopted for the sake of economy, and, we think, wisely.

We regret to note a good many typographical errors; but none are of serious moment. We regret also that so few Americans have given themselves to researches in this branch of science, so that hardly a single countryman of ours is to be found among the many authorities quoted.

MYRINGECTOMY, ETC. By J. S. PROUT, M.D., of Brooklyn, N.Y.

This is an account of a case of chronic catarrh of the middle ear, in a lady, thirty-three years old, relieved by myringectomy, after all other remedial measures had failed. The hearing-power for the watch and voice steadily decreased, although the catarrhal condition of the throat and Eustachian tubes was relieved. At last, an adhesion between the membrana tympani and the promontory was discovered, which we are left to infer occurred during the treatment. Its presence was indubitably settled by the use of Siegle's pneumatic aural speculum. The operation was performed upon the right ear, but produced no improvement in the hearing-power for the watch,—normally audible thirty-six inches,—although immediately after the operation the *voice* in conversation was heard very much better. But the voice is such a treacherous test!

The author explains the improvement in hearing in the following words:

"The membrane of the round window now receives the sound-waves and transmits them to the auditory nerve in the cochlea.

"Some of the improvement may be perhaps attributed to an improved co-ordination in the vibrating power. The two membranes may have been unequally attuned, and, therefore, a condition somewhat similar to diplopia may have existed. There was no double hearing."

One year after the operation the opening in the membrana tympani had not closed,—a fact which the author does not attempt to explain.

It is to this permanent opening we may ascribe the improvement in hearing,—in this case as well as in others where the opening has been maintained.

C. H. B.

THE CREDIT GUIDE. Philadelphia. Vol. II., No. 1, 1873, pp. 144.

This is a book the merits of which can scarcely be recognized by casual examination. We have reason to know that the compilers have endeavored to make it as full and as correct as possible; and it would be well for the practitioners of the city to give a fair trial to this attempt to furnish a defence against those who are willing to evade payment of their bills. Copies may be obtained by addressing the agent, Mr. R. A. Schwab, No. 711 North Twentieth Street.

GLEANINGS FROM OUR EXCHANGES.

PODOLINSKI ON THE EXPULSION OF CARBONIC OXIDE AND NITRIC OXIDE FROM THE BLOOD.—In opposition to commonly received opinions, Donders recently stated that carbonic oxide could be expelled from its hæmoglobin compound by other gases; and Zuntz has separated it by means of the vacuum. S. Podolinski (Pflüger's *Archiv*, vol. vi., part 11), under the direction of Hermann, compares the comparative displacing power of hydrogen and oxygen on the carbonic oxide compound, and also on the nitric oxide compound with hæmoglobin. He finds, on operating on small quantities of carbonic oxide blood with hydrogen, in a manner which allows complete mixture of the two, that half an hour is sufficient to expel all the carbonic oxide from blood saturated with this gas. Atmospheric air acts still more rapidly. In regard to nitric oxide in blood, hydrogen alone was used to expel the gas, in order to avoid formation of nitric peroxide. In this case, also, the compound was completely broken up, and nitric oxide expelled, but longer time was necessary. Hence Donders's discovery that carbonic oxide can be expelled by indifferent gases is extended to nitric oxide; and therefore the relation of hæmoglobin to the gases combining with it is, that oxygen, carbonic oxide, and nitric oxide can be expelled by indifferent gases, the degree of difficulty increasing in the same order. Each of these gases can be expelled by the one immediately following it with more ease than by an indifferent gas, and apparently, also, each is more easily evolved by the action of the one immediately preceding.

EMETICS AND NAUSEANTS.—*Le Mouvement Médicale* quotes from the *Bulletin de Thérapeutique* of March 15 the following remarks, from an article, by M. D'Ornellas, on the physiology of vomiting:

"The distinction between emetics pure and nauseant emetics is not altogether natural, since characteristic examples of each variety are rare, and the two effects are generally found combined in the same substance. M. Gubler thinks that an emetic is energetic in proportion to its nauseousness, acting not only on the stomach, but also on the buccal, nasal, and pharyngeal cavities. There is no doubt that the direct action of some articles is due to a different substance from that which produces the indirect. Thus the nauseant action of ipecacuanha is due to a principle having odor, and separable by ether (Magendie and Pelletier), the emetic influence to emetia, separable by water, and especially by alcohol (Magendie). These substances act as follows: The emetia acts always directly upon the gastric mucous membrane, upon its sensitive nerves, while, on the other hand, the nauseant principle acts upon the nerves of special sense, of the tongue, pharynx, and nose, and causes vomiting as soon as it is swallowed, or even before, independently of any local gastric action, or of elimination."

CONGENITAL ABSENCE OF A PORTION OF THE PECTORALIS MAJOR MUSCLE, AND THE WHOLE OF THE PECTORALIS MINOR ON THE LEFT SIDE (*Lancet*, March 15).—Dr. Burney Yeo reported this case at a recent meeting of the Clinical Society of London, and exhibited the patient, a boy aged 14. The case had come under his notice as an out-patient at the Brompton Hospital, the great apparent depression and flattening of the right side of the chest having induced the boy's friends to believe that he was suffering from serious intra-thoracic disease. The deformity produced by the absence of these muscles was very considerable, and was increased by depression and imperfect development of the right side of the sternum and the adjacent ribs and cartilages. No ensiform appendage could be felt. The clavicular portion of the pectoralis major was considerably hypertrophied, and the posterior fold of the axilla, containing the fibres of the latissimus dorsi, felt much thicker than that on the opposite side. There was a remarkable difference in the radial pulses on the two sides,—that on the right side being exceedingly small and weak, seeming to indicate some irregular distribution of the vessels on the same side as the muscular abnormality. The boy in all other respects was well developed, though small. He had never complained of any weakness of the right arm, and he was not left-handed. Dr. Yeo believed that a similar muscular defect had been rarely observed during life. He had appealed to Professors Flower, Humphry, and John Wood, and they had all assured him that they had heard of no like observations in the living subject. Several anatomists had recorded partial absence of the pectoral muscles observed on dissection, and within the last few days Mr. Taylor, of Guildford, had informed Dr. Yeo that he had now under his observation a volunteer in the Second Surrey Militia, with complete absence of the left pectoralis major. Cyrtometric tracings, showing the difference in the dimensions of the two sides of the chest, were handed round.

Mr. Nunn showed a sketch of a similar case, in which also some deficiency in the latissimus dorsi existed, and remarked that another case of a similar kind had come under his notice, having been treated previously at a special hospital for deformities, the authorities at which had enjoined the use of a back-board.

Another case of this anomaly is put on record by a correspondent of the *Lancet* for March 29, as follows:

"Four years ago, in India, while at the house of a cavalry officer, a quondam medical student, he took the opportunity of exhibiting this freak of nature. He was a man of powerful build, and excelled at all athletic sports. There seemed a great triangular depression on the right side of the thorax; but it was at once seen that this was not due to any falling in of the ribs. The well-developed left breast, and the large rounded right shoulder, rendered the absence of the muscle extremely well marked, especially at the acromial end of the clavicle, where there was a very well-defined hollow."

THE TRANSFUSION OF BLOOD.—The Transfusion Committee, appointed by the Obstetrical Society of London, has adopted the following programme of its aims and objects:

1. To collect evidence from gentlemen who have had experience in cases of transfusion.

2. To obtain the particulars of all recorded cases (performed on the human subject), with the view of finding out, as far as possible, to what extent the so-called successful cases were due to transfusion.

3. To examine the various kinds of instruments used in both the mediate and immediate forms of the operation.

4. If considered necessary, to institute further experiments for the purpose of determining how far transfusion may be relied upon as a means of saving life, and also the best mode of performing the operation.

Sirédey and Cordier on the Treatment of Anasarca, Ascites, and Obstinate Pleuritic Effusions by Milk.—MM. Sirédey and Cordier (*Journal de Médecine et de Chirurgie Pratiques*) have used this old and rather favorite remedy against dropsies in a way which they consider renders it less troublesome and repugnant than the "milk-cure" is otherwise apt to be. At the same time that Sirédey prescribes two pints of milk a day to his patients, he allows other kinds of food and drink. Cordier, in his thesis, cites cases of albuminuric dropsy in which the diuresis was rapid and considerable, and the dropsy disappeared under this treatment. The diet is otherwise moderate, including meat and a little wine. He does not give more than two to two and a half pints of milk, at convenient intervals, in the day. He prefers asses' milk.

Isnard on the Treatment of Constipation by Arsenic.—Dr. Isnard (*Marseille Médical*, 1872) states that many other physicians besides himself have observed that arsenic excites the appetite and improves the digestion, and facilitates the action of the bowels, but he is not aware that it has been methodically applied for the relief of constipation. Besides (1) improving the appetite, it (2) excites the muscular action of the intestines, and (3) it augments the secretions of the alimentary mucous membrane. It is particularly useful in the constipation of debilitated and anæmic females, sedentary persons, and old people. He administers arsenious acid in the dose of six to ten milligrammes, twice or thrice a day, with food. Sometimes smaller doses suffice. It may be used steadily for some time.

Digitalis an Anaphrodisiac.—M. Gourvat, in the course of a paper published in the *Gazette Médicale de Paris*, on the action of digitalis, says, "When digitalis or digitalin is administered for some time to a man in full possession of sexual powers, these become gradually weakened, the propensities disappear, formation of the liquor seminis diminishes, and may at last cease altogether. The anaphrodisiac properties of the drug are the secret of its good effect in spermatorrhœa."

MISCELLANY.

The British Death-Rate.—The London *Echo* quotes as follows from official statements: "Taking an average for the thirty-three years, 1838–70, we find that the number of deaths in England to every 1000 of the population is 22.4. Of course, the death-rate varies with each year, the figures ranging from 20.5 in 1856 to 25.1 in 1849, when the cholera visited us with fearful severity, destroying no fewer than 53,273 lives,—13,161 in London alone, and in little more than three months. The twelve most fatal causes are as follow, the figures attached showing the number of deaths due to each disease in 1870: phthisis (consumption), 54,231; bronchitis, 46,699; scarlet fever, 32,543; atrophy and debility, 30,530; old age, 28,889; convulsions, 26,548; diarrhœa, 25,311; heart-disease, 23,957; pneumonia, 23,729; hooping-cough, 11,901; paralysis, 11,651; and apoplexy, 11,598.

"From alcoholic poisoning 645 deaths resulted, 337 being cases of delirium tremens. Heart-disease seems to be on the increase, which is attributed by eminent physicians to the greater wear and tear of business and the increased mental activity of the age. To external causes 16,593 deaths in the year were directly referred. By railway-accidents 930 persons lost their lives; by accidents in coal-mines, 1000; 'mechanical injuries' killed 5730,—4136 arising out of 'horse-conveyance,' and 454 from the fall of heavy substances. Sunstroke killed 112 persons, and lightning 19. Of deaths by suffocation, 444 young children were smothered by bedclothes, and 171 were 'overlaid.' The proportion of suicides to every million of the population is about 70; the deaths by hanging, the knife, and drowning, being most numerous."

Here is a nut for honest homœopathists to crack. The *Homœopathic Review* says,—

"The obligations of the homœopathic practitioner to his patients to relieve pain and to stave off death are higher than his duty to practise homœopathy. If he cannot, whether from the incompleteness of science, or from his own imperfect acquaintance with it, prescribe homœopathically, he must use such measures as, within his knowledge, are most likely to achieve the end he has in view. He is the most successful physician who, within the limits where a homœopathically acting medicine can effect good, can relieve and cure, *most seldom* falls back upon an allopathic palliative."

The plain English of this is, that the dogma "*similia similibus curantur*," with the psoric theory of chronic disease, the attenuations, potencies, triturations, and dilutions of medicines, will not hold water, and must be abandoned when matters begin to look serious.

International Medical Congress in Vienna.—The third international medical congress will be held in Vienna during the week from September 24 to October 1, under the patronage of the Archduke Rainer. The following are the subjects proposed by the Executive Committee for discussion: 1. Vaccination; 2. Quarantine in its Relation to Cholera; 3. Prostitution; 4. The Sanitation of Towns; 5. Proposals for an International Pharmacopœia; 6. Proposals for making Medical Education as uniform as possible in all countries, and for establishing reciprocal right of practice. The German language will be used in introducing the subjects; but the subsequent discussions may be in French, English, or Italian, as well as in German.

Richard Partridge, F.R.S., a well-known surgeon and anatomist of London, Professor of Anatomy for twenty years to the Royal Academy of Arts, and for thirty-six years to King's College Hospital, died recently, aged 68. He was one of the surgeons summoned to attend Garibaldi after the battle of Aspromonte, but failed to find the ball which Nélaton afterwards detected with his porcelain-tipped probe.

Medical Advertising.—The Council of the Royal College of Surgeons has, upon the motion of Mr. Charles Hawkins, passed the following resolution:

"That the practice of frequently advertising medical works in the non-medical press is, in the opinion of the Council of the Royal College of Surgeons of England, not conducive to the honor and dignity of the medical profession."

An editor says, "We have lately heard of the diagnosis of a new disease discovered by our associate editor, Dr. S., not long since. A lady of remarkable conversational powers approached our medical friend with, 'Dr. S., I have a very sore tongue.' 'Let me look at it,' says the doctor. The unruly member was duly protruded. 'It is sunburnt, madam, sunburnt,' remarked the doctor, who suddenly recollected that his professional services were wanted in another direction."

The out-door physicians of the Guardians of the Poor have formed themselves into an association, with the following gentlemen as officers:

President, M. B. Musser, M.D.
Vice-President, E. J. Nolan, M.D.
Secretary, A. C. W. Beecher, M.D.
Treasurer, Frank B. Hazel, M.D.

Asylum Amenities.—"Injuries inflicted upon patients in insane hospitals are generally the result of an inadequate number of servants in immediate attendance on the inmates. With a sufficient number of attendants always present, the most perverse patient, perceiving non-compliance utterly useless, will quietly submit." Such was Conolly's advice thirty years ago.

According to the *Lancet*, the Registrar-General states, in his annual summary of the weekly returns, that London has now upwards of four million souls, and had in the middle of 1872, within the limits of the health returns, 3,311,298 inhabitants. The estimated increase of population was 44,839. The average mortality of the year was 21 per 1000.

American Medical Association.—The undersigned proposes to charter a *palace car* for the trip to St. Louis. Cost to each passenger, six dollars. Leave Philadelphia May 2, noon; Baltimore, 4.15 P.M. All who desire to avail themselves of this opportunity should address

W. B. Atkinson,
1400 Pine Street.

At a recent meeting of the Société de Biologie, in Paris, M. Cl. Bernard announced that the daughter of the late M. Rayer had sent a donation of six hundred francs, in token of the interest taken by her father in the society. The money would be applied to the publication of the proceedings.

Philadelphia County Medical Society.—Dr. J. Solis Cohen will deliver a lecture at the Conversational Meeting, April 23, at 8 P.M., on Acoustic Phenomena, Normal and Pathological, illustrated by physical and physiological experiments.

The treasurer of the Aberdeen Infirmary, in a letter to *The Times*, asserts that "Hospital Sunday" has been an institution in that city since 1784.

Mortality of Philadelphia.—The interments reported at the Health Office for the week ending April 12, 1873, were 256; 138 adults, and 118 minors. 10 were of bodies brought from the country; making the mortality of the city 246. Among the assigned causes of death were:

Consumption of the Lungs	28
Other Diseases of the Respiratory Organs	33
Diseases of the Circulatory Apparatus	11
Diseases of the Brain and Nervous System	54
Diseases of the Digestive Apparatus	24
Zymotic Diseases	25
Typhoid Fever	3
Diseases of the Urinary Organs	5
Casualties	8
Cancer	9
Debility (including "Inanition" and "Marasmus")	24
Still-born	13
Old Age	7

(The interments reported for the week ending April 13, 1872, were 439.)

The meteorological record kept at the Pennsylvania Hospital was as follows:

		THERMOMETER.		BAROMETER. (2 P.M.)
		Max.	Min.	
April	6	60.0°	42.0°	30.15 in. (Thunder-storm.)
"	7	61.0	44.5	30.09 in.
"	8	62.0	47.0	29.95 in.
"	9	57.0	51.5	30.02 in. (Thunder-storm.)
"	10	59.0	45.5	30.28 in.
"	11	69.5	47.0	30.20 in.
"	12	43.5	36.5	29.83 in. (Rain and Snow.)

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM APRIL 8, 1873, TO APRIL 14, 1873, INCLUSIVE.

White, Robert H., Assistant-Surgeon.—Relieved from duty in the Department of the South, and to report to the Commanding General Department of the Lakes for assignment to duty. S. O. 74, A. G. O., April 9, 1873.

Kimball, J. P., Assistant-Surgeon.—To proceed to Yankton, D.T., and report to the Commanding Officer Battalion 7th Cavalry, for duty upon the Yellowstone Expedition. S. O. 64, Department of Dakota, April 2, 1873.

Carson, Joseph K., Assistant-Surgeon.—To report in person to the Commanding General Department of the South, for assignment to duty. S. O. 74, c. s., A. G. O.

Matthews, W., Assistant-Surgeon.—Relieved from duty at Willett's Point, N. Y. H., and to report in person to the Commanding General, Department of the East, for assignment to duty. S. O. 78, A. G. O., April 12, 1873.

McMillin, Thomas, Assistant-Surgeon.—Died, April 6, 1873, in camp at Headquarters Modoc Expedition.

BOOKS AND PAMPHLETS RECEIVED.

Principes de Biologie appliqúes à la Médecine. Par le Docteur Ch. Girard. Small 8vo, pp. 108. Paris, J. B. Baillieu et Fils, 1872. (Principles of Biology applied to Medicine. By Dr. Ch. Girard.)

Ophthalmic Contributions. By George Strawbridge, M.D., Lecturer on Diseases of the Eye and Ear in the University of Pennsylvania, etc. 8vo, pp. 26. Illustrated. Philadelphia, Lindsay & Blakiston, 1873.

Catalogue of the University of Pennsylvania, 1872–3.

Transactions of the Third Annual Session of the Medical Society of Virginia, 1872. 8vo, pp. 178.

SATURDAY, APRIL 26, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 452.)

LECTURE IX.

INFLAMMATORY AFFECTIONS OF THE NASAL PASSAGES.

NASAL ABSCESS.

ABSCESS of the nasal passages is met with in the inflammation resulting from traumatic injury, in that of common chronic coryza, and in that of syphilis, and occasionally in idiopathic inflammation, the result of sudden exposure to change of temperature, or that condition of system which gives rise to the formation of boils. Such abscesses are developed in the sub-mucous connective tissue, usually not far from the exterior orifice, and may occupy the septum or ala. They may be small, like a little boil, or large enough to occlude the affected nostril and press the septum aside. Sometimes the exterior of the nose is swollen, and also more or less of the face, even, in some instances, to the production of œdema. The phenomena of fever are present in severe cases.

Left to itself, the abscess ruptures spontaneously in a few days; but the duration of the affection can be lessened by opening the abscess with the knife. If the inflammation is severe, a leech may be applied within the nostril. Warm-water applications are very beneficial, impregnated with sedatives or astringents.

Syphilitic abscess is usually a tertiary manifestation originating by a gummous deposit. Its progress is slower than that of acute abscess; it is less painful, and attended by a less viscid discharge. After rupture of the abscess, the discharge is thicker, purulent, sanious, and offensive. Perforation of the septum is not an infrequent result. The local treatment is the same as for ordinary abscess, in the first instance; but the resulting ulcer may require the local application of nitrate of mercury and the like. The patient should be brought under the systemic influence of iodide of potassium.

Guersant speaks of having frequently encountered nasal abscess in infants supposed to be affected with polypi. He attributes the affection usually to blows and falls, but has seen it dependent on caries and necrosis of the vomer, etc.

Chronic inflammation, especially when syphilitic or scrofulous, frequently terminates in ulcerative destruction of more or less of the cartilaginous septum; occasionally by one large orifice, sometimes by several small perforations. The edges of the perforations require frequent cleansing, and occasional touching with caustics. Operations for closure of large perforations have been performed by plastic transplantation of mucous membrane.

CORYZA.

Coryza is an acute catarrhal inflammation of the nasal mucous membrane, sometimes confined to one nostril, but more frequently affecting both, and often extending into the maxillary sinus, frontal sinus, lachrymal duct, and Eustachian tube. The mucous membrane is red and swollen, and discharges a more or less copious secretion, which varies in quality at different stages of the affection; being at first serous, then sero-purulent, and loaded with salines, which sometimes excoriate the tissues. Sometimes fibrin is secreted, and collects in a membranous layer.

The symptoms of this affection are too well known to need enumeration; when severe, pain will be felt in all the localities implicated in the inflammation, and there will be headache, insomnia, loss of appetite, and general languor. Nasal respiration will be more or less obstructed, until a copious discharge takes place which relieves the distended tissues. The affection subsides spontaneously in a few days, rarely progressing to suppuration. Sometimes a series of attacks follow in a more or less rapid succession.

A peculiar syphilitic coryza is noticed in children, due usually to the development of mucous patches, often progressing to ulceration, with more or less destruction of cartilage and bone.

Coryza can often be broken up by inducing copious diaphoresis within the first twelve or twenty-four hours of the attack. The snuffing up of vapors of iodine, camphor, chloride of ammonium, or other substances, sometimes accelerates the stages of the affection and brings it to a prompt conclusion in a few hours. When fully established, the suffering can be lessened by warm foot-baths, warm aromatic drinks, and the use of anodynes to promote sleep.

An idiosyncratic inflammation of the nasal passages and parts adjacent occurs in certain individuals from the inhalation of various vegetable and animal emanations that periodically appear in the atmosphere. The distress is very severe, and the usual symptoms are those of ordinary coryza. Change of locality at the usual time of the attack is often the only remedy, care being taken to seek a residence where the special conditions productive of the affection are not present. In some instances quinia or carbolic acid, injected into the nostrils, seems to destroy the organisms which produce the disease.

CHRONIC CORYZA.

Chronic inflammation of the nasal passages may be catarrhal, scrofulous, or syphilitic. It usually produces a more or less hypertrophied, and sometimes an indurated, condition of the mucous mem-

brane of the turbinated bones and of the alæ of the nostrils. Sometimes the hypertrophied membrane protrudes into the passage, so as to be mistaken for fibroid formations. Small polypi and warty excrescences are not infrequently developed in addition.

The inflammation of simple catarrhal chronic coryza rarely leads to ulceration; but that of scrofula and syphilis is quite prone to ulcerate. In addition to this, specific inflammation not infrequently destroys more or less of the cartilaginous and bony structures, giving rise to an offensive discharge, which is characterized by the term ozæna.

The products of secretion are not discharged freely, portions of them remaining pent up in the sinuosities of the passages, where they undergo decomposition. They are discharged in crusts or lumps at irregular intervals.

The symptoms of the affection are: more or less obstruction to nasal inspiration, and the presence of morbid discharges from the nostrils and from the posterior nares.

The treatment of the affection consists principally in the prompt removal of the accumulated products of secretion, and the maintenance of the general vigor, by proper diet, exercise, and cleanliness of habit. The parts should be syringed or washed out by the nasal douche several times a day, water in liberal quantities being used for the purpose, impregnated with salt, bicarbonate of soda, chlorate of potassium, and the like, to assist in the detachment of adherent inspissated mucus and pus. The water used should be warm. After the parts are cleansed, astringent solutions, such as alum or sulphate of zinc, should be used in a similar manner, so as to impress the cleansed mucous membrane; and strongly impregnated with detergents, permanganate of potassa, carbolic acid, chlorinated soda, etc., if there is any offensive odor about the parts. The protrusions of mucous membrane should be cauterized or torn off, and dead bone be removed by surgical operation. Scrofulous patients should be placed upon the use of cod-liver oil and the phosphates, and syphilitic subjects upon iodide of potassium; and tonics and stimulants should be given where the general system is depressed. Protracted and persistent treatment of this kind is requisite for success.

EPISTAXIS.

Bleeding from the nose may be traumatic or idiopathic, or may depend upon disease. It is restrained by the local application of cold and astringents, by compressing the nostrils, by arresting bleeding, in extreme cases, by ligature; in short, by all the methods employed for restraining hemorrhage elsewhere. Where ordinary means do not suffice, a tampon is introduced into the posterior nares from the mouth, by means of Bellocq's canula, or some substitute for it, and secured by threads to a plug in the nostril. These tampons should not be retained in position more than forty-eight hours at a time, and if the epistaxis recurs in the removal, fresh ones should be applied.

The patient should be kept at rest, and all movements which favor the continuance or reproduction of hemorrhage are to be interdicted. At the same time systemic remedies are to be administered to favor the contraction of the arterioles; such, for example, as ergot, iron, turpentine, etc.

OCCLUSION OF THE NOSTRILS.

The nostrils may be occluded congenitally, or may become so as the result of accident or disease. The occlusion may consist simply in adhesion of the integument, or in the presence of an intervening membrane of cutaneous and mucous tissue, or even of fibroid tissue. Fracture of the nasal bones may be productive of occlusion.

In the treatment of this condition the offending tissues should be divided or removed, and the passages thus made kept pervious by the insertion of tubes or tampons until healing has been completed; any subsequent contraction being overcome by systematic dilatation.

OCCLUSION OF THE POSTERIOR NARES.

This is usually congenital. The obstruction may consist of fibrous tissue merely, or of bone also. The use of the probe will establish the diagnosis.

A passage through the parts is made by boring through them with a sharp steel instrument, or by the galvanic cautery, and is then maintained patulous by the frequent introduction and occasional retention of metallic dilators.

INFILTRATION OF THE SIDES OF THE VOMER.

The mucous membrane of the vomer is apt to become infiltrated, or pushed off by a sub-mucous infiltration, in inflammatory affections of the nasal passages. The lecturer was the first to draw attention to this condition, which is recognized upon rhinoscopic examination by the appearance of whitish and puffy tumors, more or less symmetrical, on either side of the vomer. The symptoms of the affection are those of obstruction to nasal respiration, and an uncomfortable sensation in the parts.

The treatment consists in destroying them by caustic applications or pulling them away by means of suitably curved forceps.

DEVIATION OF THE SEPTUM.

These are sometimes congenital, sometimes produced by disease, or the presence of tumors. In some instances it becomes advisable to attempt the restoration to the middle line. This is accomplished by the insertion of metallic tubes, compressed sponge, or laminaria tents, which are kept in daily for several hours at a time.

A so-called periosteal resection is sometimes performed for the relief of the deformity. A flap of mucous membrane is raised from the cartilage; the cartilage is thinned down until it can be pressed into the middle line; the flap is replaced, and the parts kept in position by sponges in the nostrils.

The unpleasant sensations of the patient are some-

times relieved by cutting out a piece of the septum, and thus establishing a passage for respiration on both sides.

Sometimes the cartilaginous septum is separated from the bone by subcutaneous division, after tamponing the nostrils, and the whole nose pulled over to the opposite side and retained by adhesive strips. Sometimes the nose is divided in the middle line, and the cartilage resected.

FOREIGN BODIES IN THE NASAL PASSAGES.

Foreign bodies are frequently inserted into the nasal fossæ by children; and if they are discovered early, they are very readily removed. But they may become impacted, and in time give rise to an irritating and offensive discharge. If the foreign body be of a comparatively large size, or be of such a character as to become swollen at the point of impaction, the nose will be distended out of its normal shape, and there will be increased severity of the pain and other local symptoms.

The presence of a foreign body in the nostrils usually produces inflammatory reaction, which is very apt to take on the appearances of a chronic coryza, with copious secretion of pus; terminating in ulceration, if not actual necrosis, of the parts against which the foreign body lodges.

When foreign bodies are retained for a long time within the nasal cavities, they are apt to become incrusted with the saline portions of the altered secretions to which these irritants give rise, and thus are formed the rhinoliths or nasal calculi sometimes met with in this region.

Sometimes the foreign body finds its way into the frontal sinus, especially when it is an insect or ascaris, producing intense frontal pain, headache, and even delirium, which may terminate fatally.

The earliest possible removal of the foreign body from the nostrils is the treatment that should be adopted in every case. Sometimes it can be dislodged by exciting the act of sneezing by the use of sternutatories. The injection of a strong stream of water through the nostril from behind forwards by means of the posterior nasal syringe, or by Thudichum's douche passed from the opposite nostril, will often suffice to expel the foreign body; and these simple and harmless measures should be tried in every case before resorting to more violent extractive efforts with the forceps and other instruments. Curved bougies and catheters are frequently serviceable, when passed forwards from the pharynx, in pushing the obstacle towards the exterior. External incisions, and even division of the nose, may become necessary for the removal of an impacted foreign body, when the usual means of extraction have proved unsuccessful.

Tumors, or foreign bodies, or parasites, in the frontal sinuses may require trepanning of the frontal bone; or access may be gained to these cavities by division of the nose at its root, and turning it over upon the face.

RHINOLITHS.

Calculi are occasionally met with in the nasal fossæ; their origin being generally due to the retention of some small foreign body which serves as a nucleus for the deposit of calcareous matter in successive layers. These rhinoliths are generally movable, varying in size from that of a pea to that of a hazel-nut, and in some instances completely obstructing the nostril. They are attended with the ordinary symptoms of obstruction, irritation, nasal and frontal pain, and a muco-purulent discharge.

The treatment consists in the removal of the concretions, an operation usually easily performed by the ordinary forceps. When the calculus is very large, crushing may have to be first performed.

ORIGINAL COMMUNICATIONS.

A NEW INSTRUMENT FOR TREATING DISEASES OF THE NECK AND CAVITY OF THE WOMB.

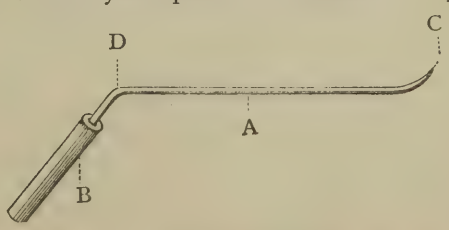
BY H. E. WOODBURY, M.D.,
Washington, D.C.

THE object of this paper is to introduce to the profession an instrument, simple in construction, and one that has proved valuable in my own practice. I desire that others may test it, believing that the physician as well as the patient will appreciate its value. It was designed and constructed to supply a desideratum in uterine therapeutics, patent to every physician who has encountered in practice those persistent and most troublesome diseases, endocervicitis and endometritis.

Having used the pencils of lunar caustic and of potash, as directed by our best authorities and practised by our most skilful physicians, I am free to confess that I was dissatisfied with the results of this mode of treatment, and felt that some means should be devised to promote a more rapid cure in such cases.

Weighing the matter well in my own mind, I concluded that the cause of the prolonged treatment under the old method was to be found in the fact that the medicinal agents employed were not brought thoroughly in contact with the diseased surfaces. In order to make the applications to the parts affected more thorough, I constructed the instrument I am about to describe, which I term the *Uterine Injector*. Whether by its use this end is accomplished I leave it for the profession to decide.

The instrument is simple, and easily made. Any physician can manufacture it for himself, as I have done for two years past. It consists of a piece



of glass tube (A), calibre of catheter No. 8 or 10, bent by heating in the flame of a spirit-lamp, as

shown in the diagram, drawn out to a point, and having a capillary opening (C) in the end. The edges of this opening are perfectly rounded by melting slightly in the flame. If too much heat be applied, the aperture will be closed. This tube is six or seven inches in length. Attached to the other end is a piece of rubber tubing (B), the extremity of which is closed so as to be air-tight. The curve near the point of the instrument should correspond to the curvature of the neck and cavity, and the angular bend at D is to prevent the hand from obstructing the view when the instrument is used.

By compressing the rubber (B) we exhaust the air in the tube,—on the principle of the syringe,—and, introducing the pointed end into a bottle of acid, iodine, or any other fluid, then releasing the rubber from pressure, we can take into the tube whatever quantity of the liquid we desire to use. The instrument is introduced into the neck or cavity of the womb, through the speculum, and its contents discharged slowly by compressing the rubber tube (B).

I believe that this simple contrivance will commend itself to the profession from the following considerations:

1. Its adaptation to the purposes for which it is designed.

2. The thorough manner in which, by its aid, applications may be made to all parts of the neck and cavity of the organ.

3. The convenience of the instrument, which prevents the hand of the operator from coming in contact with the acids or fluids used.

4. The precision with which the amount of fluid to be used can be regulated,—in the majority of cases only a few drops being required.

5. From the nature of the materials used in its construction, it is not likely to be acted upon by the strong acids, nor will it easily get out of repair.

I have been using the uterine injector in my practice for more than two years, and during that period have succeeded in curing my cases in less than one-half the time required by the old nitrate of silver treatment,—a method I had fully tested previous to the construction of my instrument.

The following are the remedies upon which I most rely: nitric acid; carbolic acid; tincture of iodine; extract of hemlock; tannic acid and glycerine.

Modus operandi.—Introducing the speculum,—I prefer Stover's, for I can use it as a retractor if the vaginal walls be lax,—I first explore the neck and cavity with the uterine sound, to satisfy myself as to the extent of the ulceration. After this I thoroughly remove the secretions from the parts. I then pass the injector—charged with a few drops of the fluid I desire to use—into the neck or cavity of the organ, as the case may require, and *very slowly* inject the fluid, *gradually removing the instrument during the act,* in order to make the application cover all of the affected surface. Finally I pass through the speculum a plug of cotton,—the size of which varies according to the laxity of the vaginal walls,—to which a fine strong cord is attached. This plug is saturated with carbolic acid and olive oil or glycerine,—one part of the former to five or six of the latter,—and is left in contact with the os uteri for from twelve to twenty hours, when the patient by means of the cord removes it herself, and injects a weak solution of sulphate of zinc, or Castile soap and water.

During the first fortnight of treatment I make an application every other day,—afterwards at longer intervals, as the necessities of the case may require. I always order uterine and general tonics in these cases, and I am convinced that they generally prove valuable auxiliaries to the local treatment advocated in this paper, and fortify the system against subsequent attacks of these annoying and debilitating diseases.

I know that there is a great diversity of opinion in the profession as to the expediency of intra-uterine injections, and feel constrained to refer to the views, relative to this subject, of one to whom we are under many obligations for valuable contributions to our science in the past.

Dr. Gaillard Thomas, in the *New York Medical Journal,* August, 1870, says of them, "They have done, and are going to do, a great deal of harm." What evidence does he adduce in proof of this? He states that he injected five drops into the uterine cavity, and it caused a tedious peritonitis, the patient barely escaping with her life.

He adds, "But it will be said the cervix was not dilated in this case," and goes on to state that dilatation is itself attended with danger, citing a case in which he practised it, using Peaslee's dilators, and his patient died of peritonitis in one week. "I think," he says, "the mischief was done by the dilatation of the neck of the uterus. Yet I am very sure that the dilators were passed with requisite skill, for I spend much of my time in this practice, and this operation is one to which I have constant resort."

Now, what does this all prove? Simply that the doctor had an unfortunate case,—a case in which he believed that dilatation of the cervix lighted up a peritoneal inflammation, without any injection whatever; and yet he says that he constantly resorts to this operation, attended with danger as he knows it to be; while he "will not use intra-uterine injections, even for the hemorrhage of abortion."

Again, in the case where his patient barely escaped with her life, there was, without doubt, a diseased condition of the Fallopian tubes,—dilatation, perhaps, which might have given rise to the untoward results of the operation. We have read or heard of a case in which a uterine sound passed into and through an unimpregnated uterus to a distance of four or five inches. The instrument was repeatedly passed, in the presence of several reliable physicians. Where did it go? Where could it go, but into a dilated Fallopian tube? Such cases, of course, are exceptional, and to our mind they offer no argument against intra-uterine injections.

A man died from erysipelas, developed by vaccination, a few years ago, in my own neighborhood. Is this an argument against vaccination? A woman dies in confinement when the forceps have been used to complete the delivery. Should we therefore dispense with this valuable obstetrical instru-

ment? Tracheotomy, lithotomy, and many other operations are sometimes followed by death. Are we therefore to fold our hands and refuse to use the knife? If so, there will be an end to all progress in the healing art; and the noblest of the professions will verily become a by-word and a reproach among men.

If the use of such an instrument be objected to on the ground that danger attends the injection of the cavity of the womb, I think such an objection may be set aside by the recorded experience of such men as Dr. Barnes of London, the late Dr. Simpson of Edinburgh, and Dr. Peaslee of New York.

At a meeting of the Medical Society of the County of New York, a few years since, the latter gentleman, referring to the injection of a solution of persulphate of iron in metrorrhagia, said, "Having employed the agent in perhaps one hundred cases, I have never seen any harm result, except that in one case it gave great pain." Dr. P.'s experience fully confirms the statements of Drs. Barnes and Simpson as to the safety of the operation, even where a comparatively large quantity of fluid is injected. The instrument I use will contain but from fifteen to twenty minims; I inject from three to ten drops.

After the manner indicated in this paper, I have treated every case of endo-cervicitis or ulceration that has occurred in my practice for more than two years, and in no single case have any unpleasant results followed. I believe that when the acid or iodine is injected in a small quantity *and slowly* it is speedily and entirely taken up by the diseased tissues with which it comes in contact, and acts far more efficiently and rapidly than the pencil of caustic, which by coagulating the albuminous compounds on the surface forms a sort of white film, beneath which its effect is not apt to extend. A remark that is true in regard to many other instruments, now properly appreciated by the profession, applies with equal force to this: judgment and discretion should be exercised in using it. In reckless or inexperienced hands, no instrument is more dangerous than the lancet, the scalpel, or the catheter; and yet what intelligent physician would therefore ignore their use?

Trusting that by this contribution to uterine therapeutics I may in some degree be instrumental in advancing uterine surgery and in relieving thereby the ills of the weaker sex, I present my uterine injector to the profession, with the hope that in their hands it may prove as valuable an aid as it has so far proved in my own.

WASHINGTON, D.C., Jan. 1, 1873.

NOTE.—Without taking the trouble to go over my note-book, I have written down from memory more than twenty names of patients treated by me after the method set forth in this paper, in all of which the treatment proved safe and successful.

NOTHING is so successful as success. If a physician is supposed to have a large practice, everybody will contribute to make it larger; just as a man who is reputed rich can always borrow.

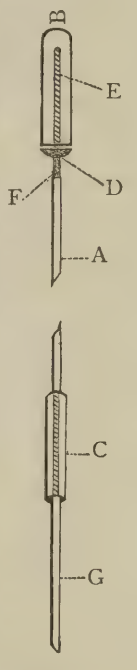
MEERSCHAUM PROBE.

BY H. CULBERTSON,

Late Assistant-Surgeon, U. S. Army.

IN 1864 I invented this probe, and lately have made an addition to it for the detection of clothing in wounds. The following is the description:

The shaft A is in length from D to C 4½ inches, and in diameter that of a medium-sized probe. At D is a shoulder ⅛ inch in diameter, which is securely attached to the shaft. E is the continuation of the shaft A, is ⅜ inch in length, $\frac{1}{16}$ inch in diameter, and a thread is cut on its surface the entire length. B is a round tip of meerschaum, 3 lines in diameter and 6 lines in length, which is saturated with a cold solution of the ferridcyanide of potassium,—red prussiate of potassa,—and which is drilled out in its centre longitudinally ⅜ of an inch, the opening being $\frac{1}{16}$ of an inch, strong, in diameter.



The surface of the shaft from F to D, as well as the exposed surface of the shoulder D, is roughened on the shaft longitudinally for the length of ¼ inch and on the curved surface of the shoulder D. At C is represented a cylinder, in which is cut a thread, and which receives the ends of the shafts A G. The shaft G is 4½ inches in length. The entire probe (except the tip) is made of silver, and is about 9½ inches in length.

The tip is attached to the shaft E thus. Wrap it with paper, over this bind it firmly with thread, fill its cavity with finely-pulverized gum shellac, packing this with a pin; heat the shaft to a dull red, and immediately insert it into the cavity (filled with the gum) of the tip, push it quickly down, and hold it firmly against the shoulder D until the gum has cooled. The tip can then be dressed down, round and smooth, with fine sand-paper.

The meerschaum can be procured from a large-sized cigar-holder. One of the best tests of the purity of the article is its floating on water for a time, while plaster of Paris will immediately sink.

Lead leaves the usual lead-mark on the tip, as well as a slight indentation beneath the mark.

Iron, in either a recent or an old wound, leaves on the tip a blue trace; but, if the fragment of this metal is covered with an albuminous coating, no coloration will be shown.

Denuded bone, or any hard foreign body in the wound, when the tip is made to impinge against it, will leave a *scratch*. This quality is also useful in the examination of diseased joints where cartilages are ulcerated and bone exposed in the cavity of the joint.

If clothing be in the wound, and the heel of the tip (at F) be revolved against it, fibres of the material may be retained at this rough part of the

probe, and a strong glass or the microscope will complete the diagnosis.

In a case treated in 1865, after passing this probe beneath the scapula, it came out colored a deep black. On removing a Minié ball from beneath that bone, it was found invested with a portion of soldier's blue cloth.

Late in 1864 an officer informed me that by the aid of this probe, after the failure of other means of diagnosis, a fragment of shell was detected near his elbow, and was removed by a Dr. Smith, of the United States army.

A solution of the red prussiate of potassa, 20 grs. to the ounce, will sufficiently saturate the tip by leaving the latter in the fluid three days.

Before inserting the tip in a wound, wipe off the brown coating on its surface. In using the probe, revolve the tip on its axis, or move it to and fro upon its side, or laterally upon the end, against the foreign body. On withdrawing it from the wound, do not wash the tip until it has been carefully inspected with the aid of a glass. Finally, wash it in clear water, and, when dry, rub out the traces with fine sand-paper and polish with unglazed paper. Before using, however, the probe should be inspected with a glass, to be sure that there are no fibres of clothing or traces upon it.

With careful usage, one of these tips will last several years, and any one can affix another when necessary.

One end of the probe is made in the usual form.

Though using this probe often since 1864, I have seen no ill results following its employment.

ZANESVILLE, OHIO, December 16, 1872.

NOTES OF HOSPITAL PRACTICE.

EPISCOPAL HOSPITAL.

SERVICE OF SAMUEL ASHHURST, M.D.

A CASE OF NECROSIS OF THE CRANIAL BONES IN CONNECTION WITH DISEASE OF THE MASTOID CELLS.

IN the year 1868, George Clark, aged 12, became deaf, and in 1870 a discharge was established from both ears, from which time the hearing was very generally improved by the operation of syringing the meatus. About the middle of June, 1872, after a voyage from Boston to Truro, N.S., and return, he was sick for a week with "diarrhœa, sick stomach, and pain in the bones." He was quite well during the rest of the summer, spending part of it in a cork-factory in Boston, and towards its close working in a saw-mill at Bath, Maine. On September 27, 1872, he left Bath as a seaman, and upon his arrival at Philadelphia, September 30, was taken sick with diarrhœa and vomiting, and for the first time a swelling was noticed at the back of the right ear.

On October 5, 1872, he was admitted into the Episcopal Hospital, Philadelphia. A water-dressing was applied, and he was ordered fifteen drops of the tincture of the chloride of iron three times a day.

October 6.—There is a discharge from the right ear, which appears to come from the side rather than from the bottom of the meatus.

October 7.—The patient is confined to bed, and presents the following symptoms. He is almost entirely deaf. There is much puffiness of the eyelids and face on the right side, and the upper lip is swelled. The posterior portion of the scalp on the right side is elevated, and there is deep fluctuation present; the discharge from the ear has stopped.

October 9.—Discharge from the ear is re-established; there is less œdema of the face; his general condition is good. An opening was made through the scalp, and a considerable amount of sanious pus evacuated.

October 10.—There is continued discharge from the incision, and from both ears.

October 12.—Upon introducing a probe into the opening made a few days since, the skull is found to be denuded of periosteum for a space three inches in diameter. The discharge continues; pulse 120; skin hot; tongue moderately furred; there are no cerebral symptoms. A grave prognosis was made. He was ordered one pint of milk punch through the day, good diet, and beef-tea without stint. Pulse 120. Temperature in axilla 104°.

October 13, 10 A.M.—Pulse 140; temperature 104°. He was ordered six grains of sulphate of quinia, and twenty-four ounces of punch in the twenty-four hours. P.M. pulse 120; temperature 95°. (This was taken by a reliable nurse.)

October 14, 8 A.M.—Pulse 128; temperature 98°. One P.M., pulse 76; temperature 96.4°. Six P.M., pulse 136; temperature 104°. The pulse is of good volume, but much increased in frequency upon slight exertion. Here and there are dusky congested spots in the skin, and there are sudamina scattered over the surface of the abdomen. The *tâche cérébrale* is readily produced, but there is no other symptom pointing directly to the brain, his intellect being clear. His bowels are regular; the spleen is somewhat enlarged. The condition of the scalp is not materially changed.

October 15, A.M.—Pulse 148; temperature 98°. P.M., pulse 120; temperature 99.5°.

October 16, A.M.—General condition seems somewhat better. The congested appearance of the skin before referred to is now noticed to be confined to the left half of the body and the right leg. Owing to his deafness, it is not easy to examine the state of his intelligence, but it seems clear, and there are no cerebral symptoms. Pulse 84; temperature 100.5°.

October 18.—General condition improved; discharge small in amount; appetite good; appears to be doing well. (The temperature was not taken, owing to breakage of the thermometer.)

October 20.—Complains of chilliness. The congested appearance of the skin is again evident, and is confined, as before, to the left half of the body and the right leg. Has vomited once this morning.

October 21.—Congestion of skin continues; vomited again after breakfast. Pulse 120; temperature 104.5°.

October 22.—Limited congestions remain. A.M., pulse 120; temperature 104.5°. P.M., pulse 136; temperature 104°.

October 23.—Pulse 140; temperature 104°.

October 24.—The discharge from the incision has gradually increased since the 18th instant, and is now copious. There is considerable bagging of the scalp, for which a compress was applied. Complains of pain down the neck and in the upper part of the back: there is marked tenderness upon pressure over these regions. Sleeps naturally at times during the day; morphia is given at night.

October 25.—To-day there is evident pain in the neck upon rotation of the head. The local congestions continue; there are no new head symptoms, if indeed those already referred to are such. A counter-opening was made in the most dependent portion of the abscess, through which a free discharge of pus took place.

October 27, A.M.—Pulse 136; temperature 102°. P.M., pulse 120; temperature 98°.

October 28.—There is a free discharge from the lower opening in the scalp, and movement of the head causes less pain. A.M., pulse 140; temperature 102°. P.M., pulse 128; temperature 100°.

October 29.—Profuse discharge from the counter-opening. Pulse 120; temperature 105°.

October 31.—Has had a chill this morning. The peculiar congestion so often referred to is especially well marked. Discharge very abundant. Pulse 156; temperature 106°. Quinine increased to fifteen grains daily.

November 2.—Has had several convulsions, and at the time of my morning visit he lay moaning, in an unconscious condition. The right pupil was widely dilated, but the left was normal in size; both were insensitive. He has occasionally slight convulsions. It was decided to trephine with a small crown through the necrosed bone, in the hope of allowing the escape of any confined pus. The operation was followed by a cessation of convulsions, and normal contraction of the dilated pupil, although the escape of pus from beneath the bone was not very evident, as the parts were already so thoroughly bathed in the discharges. He gradually sank, and died quietly on the evening of November 3.

The post-mortem examination was made the next day. The membranes of the brain were very moderately injected on their posterior half. The occipital, temporal, and parietal bones were found to be extensively necrosed. The disease was limited externally to the inferior angle of the right parietal bone, and to the temporal bone. Internally it had invaded the occipital bone in the region of the right lateral sinus, considerable erosion and excavation having taken place there, which extended forward to the under surface of the petrous portion of the temporal bone, and in this locality two perforations, about one-fourth of an inch in diameter, had penetrated to the exterior of the skull; patches of superficial erosion were noticed upon the parietal and temporal bones, stained and slightly roughened. Externally the inferior angle of the parietal bone had undergone exfoliation, as was also the case with the squamous portion of the temporal. The mastoid process was extensively eroded, especially at its upper part, where the perforations from within were situated.

The case presents some points of interest, among which may be instanced the great variations in the temperature, and the occurrence of well-marked and persistent circumscribed congestion of the skin of the left trunk and right lower limb. I am able to furnish no satisfactory explanation for either of these phenomena, but think it well to place them upon record as clinical facts which may prove of value on comparison with other cases.

The question of interference by operation was anxiously debated, but it was thought best to await the efforts of nature so long as no distinct symptoms of compression appeared. The operation was undertaken without any defined hope of a successful result. It was, however, followed by partial amelioration of the symptoms. The trephine was applied nearly over the lateral sinus, in the expectation that the dead bone would be found separated from the sinus by lymph, and the latter so plugged with coagula as to avert all danger of hemorrhage.

The specimen affords a good illustration of how easily a trephine may be applied to a diseased external table and yet miss an internal abscess. Had I known of the existence of the large perforations revealed in the specimen, no operation would have been undertaken, as mechanical compression could hardly have existed. It is certainly remarkable that with such extensive disease of the bones there should have been so little meningitis.

THE INNERVATION OF THE LACHRYMAL GLANDS (*Lancet*, April 5).—In his experiments on this subject, Dr. Demtschenko (*Pflüger's Archiv*, Sept. 1872) has operated on animals narcotized by means of morphia. The subjects were dogs, cats, and rabbits. The electric stimulus was applied by means of Dubois-Reymond's apparatus. The quantity of fluid discharged by the lachrymal glands was estimated by the number of square centimetres of blotting-paper that were moistened. In the dog and cat the lachrymal nerve could be reached from the orbit; but in the rabbit the skull had to be opened. The chief results obtained by Demtschenko were that the temporo-malar nerve exercises no influence on the lachrymal gland. Excitation of the great sympathetic augments the secretion; it augments also the quantity of fluid secreted by the conjunctiva, even when the nerve is irritated after ablation of the gland. The augmented flow of tears which follows irritation of a large number of cranial nerves (as the frontal, infra-orbital, nasal, lingual, glosso-pharyngeal, and pneumogastric) is not interfered with by section of the sympathetic, but is stopped directly by section of the lachrymal. This reflex action is not wholly abolished during the sleep induced by chloroform. The author proceeds to compare the results of irritation of the sympathetic and of the fifth on the quantity and quality of the tears. The great violence requisite to expose the fifth throws a doubt upon the value of these experiments. The tears, however, were clear and limpid when the fifth was irritated, but cloudy when the sympathetic was excited. On the whole, he thinks he may conclude from these and other experiments that the great sympathetic presides over the normal humectation of the globe of the eye; and this is supported by pathological facts, since the eyes of patients suffering from paralysis of the fifth retain their proper moisture, though the power of shedding tears is abolished. Disturbances of the circulation caused variations in the lachrymal secretion. After ligation of the carotid artery, irritation of the lachrymal nerve caused a less abundant flow of tears than on the sound side. Ligation of the veins increased the flow of tears. All troubles of the respiration caused increased flow.

A RAILWAY CASE (*Lancet*, April 5).—A difficult railway case, developing a difference of opinion among medical men, was tried at the Carnarvon Assizes. On the one side, it was alleged that the plaintiff, a widow with five children, making 30*s*. a week or more before the accident, was paralyzed on the right side, and would never recover from it; on the part of the company, "equally eminent men" maintained that the paralysis was hysterical, and would disappear as soon as the anxiety connected with the trial was over. There had been no hysteria previous to the accident. The jury was puzzled by the discrepancy of medical opinion. After two attempts to agree, the parties concerned agreed to a verdict for the plaintiff for £600. The public may easily overrate the unreasonableness of a difference of opinion in such cases. Strictly speaking, no absolute opinion of the permanence of such injuries can be arrived at. It follows that one side takes the extremely favorable view, and the other the extremely unfavorable. The difficulty is in the nature of the facts and in the essential obscurity of nervous states.

CURE OF NÆVI BY MONSEL'S SOLUTION APPLIED EXTERNALLY.—Dr. Jacob Geiger, of St. Joseph, Mo., records (in *The American Practitioner* for April) a case in which two nævi, one occupying the perineum and part of the scrotum, and the other seated on the abdomen, of a child six months old, were completely removed, in less than one month, by painting twice a day with a mixture of equal parts of glycerine and a strong solution of persulphate of iron.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, APRIL 26, 1873.

EDITORIAL.

MISTAKEN LIBERALITY.

IT is stated in the daily papers that "two of the Departments" of the Michigan University, at Ann Arbor, have been placed under the control of homœopathists. Exactly what this means we do not know, although well aware that for many years the adherents of homœopathy have been working hard to get a footing in that school, which is, we believe, the only State institution of the kind in the country. But we presume that chairs for the teaching of Hahnemann's doctrines have been established, the professors holding equal rank with members of the previously existing Faculty.

Now, it would seem at first sight a most just and reasonable thing that every faith should have a hearing, and that each student should be allowed to choose that mode of practice which most commended itself to his judgment. And yet, were this plan followed up, Thompsonianism, eclecticism, hydropathy, and every other *ism* and *pathy*, might demand a chance to present its claims. In thirty years homœopathy has failed to impress itself in any degree upon medical opinions or practice; in the world of science it and its adherents are alike unknown. The dogma upon which it is based is avowedly untenable in emergencies. Hence it is idle to claim for it a place as a "department" of medicine.

We trust that the regular Faculty of the Michigan University will have the spirit to refuse utterly this unequal yoking, and to resign in a body if the attempt is made to force it upon them. They would have the moral support of the entire profession in so doing, and, even if the school should be left in the hands of homœopathists, the evil would be far less than that of a seeming fraternization with quackery.

THE REMOVAL OF THE ALMSHOUSE.

AMONG other public changes, some of which are for the better and some for the worse, it is proposed to abandon the present site of the Almshouse, building another in some less central position. Upon what pretext so needless and so very expensive a job is urged on the authorities, we do not know. The "palace for paupers," as Miss Martineau called it, has cost very large sums of money, both for its original construction and for repairs and improvements. It is large enough to afford shelter to a great many able-bodied men and women who ought to be made to earn their living. It is not in the way of projected streets or other public benefits which are at the present time imperatively needed. The ground it occupies has not yet so risen in value that the mere sale of it would pay the cost of the new structure.

We cannot help feeling a strong suspicion that the whole affair has arisen, not out of any public want, but out of private greed. A plan like this seemed to some contractor to afford the best available opportunity for a fresh grab at the city's purse, and he set things in train to get it on foot and the controlling strings in his hands. We believe that for the present the scheme is in abeyance, but we do not think that it has been so completely "squelched" as it deserves to be. Many things cry aloud for betterment before this matter need be thought of.

A VERY UNDESIRABLE REPEAL.

A BILL now before the Governor of this State will, if it becomes a law, affect very injuriously the sanitary interests of the growing portions of Philadelphia. It is, in brief, to repeal part of an act passed in 1855, which forbade the erection of any new house or building on any street, court, or alley of less than twenty feet in width, unless such house were set back so as to increase the width of the street, court, or alley to at least twenty feet.

Another portion of the same act of 1855 provided that no new street should be laid out with a width of less than twenty-five feet, and that every new dwelling should have an open space at least

twelve feet square either in the rear or at the side of it.

To the medical profession, who know too well the evils attendant upon the crowding together of the dwellings of the poor, the benefit of such legal enactments, properly carried out, must be patent; and it is difficult to see on what grounds the abrogation of laws so manifestly wholesome could be proposed. We most earnestly hope that the Governor will withhold his sanction from a measure which, for the pecuniary interest of a few, would sacrifice the health of many.

LEADING ARTICLES.

WHO ARE EXPERTS?

AMONG the topics that, at different times, have engaged the attention both of jurists and physicians, there is probably none of more importance, and none that has occasioned greater difficulty in trials, than the subject of *expert evidence*. In both civil and criminal cases, where the gravest interests are at issue, the final result frequently depends most materially upon the character of the expert testimony. It becomes, then, a question of the utmost consequence to understand the proper meaning of this term, and what is its significance when applied to evidence given in a court of justice.

The term "expert witness" literally signifies a *skilled* witness—one who has an accurate knowledge of the matter under consideration. Such witnesses are "chosen on account of their special knowledge or skill in particular matters, to testify, or make a report embodying their opinions" (Elwell). The "expert" witness does not testify to *facts*, like the ordinary witness; but he gives his *opinion* based upon facts that have been testified to by others. It is his special function to carefully weigh all these facts, to sit in calm judgment upon them, and to deduce conclusions from them, which he delivers to the court and jury as his *opinions*.

If he is an honest man, and delivers his opinions according to his oath "to declare the whole truth," he need not be afraid of the danger of committing a mistake in delivering his testimony, for he is simply *giving his opinion*, and he cannot be mistaken *as to that*, however he might be mistaken as to supposed facts. We presume that there can be nothing within the sphere of human intelligence more certain than the individual *opinion* which a man forms (supposing he forms one at all) after a careful consideration of a catenation of facts. Observe, we do not say that this opinion is necessarily or absolutely correct in the abstract,—that is not the question; we merely affirm that he cannot be mistaken as to the fact of its being his opinion; and *that* is all he swears to. As to its *correctness*, the jury must decide.

No doubt, many conscientious men fall into error just on this very point, and they are reluctant to testify as to matters of opinion, under the mistaken idea that they might commit a fatal blunder in a capital case, and perhaps, through their "opinion," be the unhappy means of sending a fellow-being to the gallows. Unquestionably, the position of the expert witness on such a solemn occasion is a most trying and responsible one. Keenly alive to the dreadful issue that may be hanging on his evidence, he must nevertheless deliver his opinions with all truthfulness. In the language of Dr. Percival, "he should use his best endeavors that his mind be clear and collected, unawed by fear, and uninfluenced by favor or enmity."

For the *consequences* of his opinions, he should however understand that he is in no wise responsible. He dare not suppress aught of what he conscientiously believes to be *the truth*, no matter what may be the result to the accused.

How unspeakably important, then, it is that the individual who assumes the functions of the "expert" witness in a criminal trial, should so clearly understand the matter on which he is to testify, and be so familiar with its every detail, as to preclude all possibility of error on his part! Yet it is notorious that nearly every criminal trial in our country is hampered, if not disgraced, by what has been sneeringly called by the newspapers the "war of the experts." The public have come to look upon it as a matter of course that the professional "experts" summoned for the different sides shall necessarily wage a fierce and bitter warfare against each other; and, regarding all the so-called experts as being on a precise equality, they allow the testimony of the one to neutralize that of the other; and they are consequently inclined to reject the whole as entirely superfluous, if not positively worthless,—a result which we feel assured is not unfrequently reached by the jury as well as the public—to the great and manifest disparagement of justice.

Let us, by way of illustration, suppose the case to be one of poisoning—real or alleged. Now, in order to substantiate the charge of poison, it is not enough that the symptoms should have resembled those of the alleged poison, since all authorities agree that there are no symptoms exclusively characteristic of any poison (for, if so, there would be

no occasion to make a chemical analysis); neither is it sufficient that the post-mortem lesions should resemble those attributed to the alleged poison, since it is notorious that these lesions are exactly simulated by disease. A third factor—the chemical analysis—must enter into the consideration. If all these three factors harmonize (supposing the chemical examination to have been properly made), we think that the proof of poisoning may be considered as established. But we by no means wish to be understood as maintaining that this proof can never be made out without the chemical evidence. On the contrary, there are cases where, for various reasons, this last means of proof is impossible, but where the whole circumstances of the case—medical and moral—point so unequivocally to poison as to leave no reasonable doubt as to its administration. These, however, are exceptional cases, and they demand the most searching investigation before arriving at a final decision.

Again, we may suppose another case—a non-fatal one,—where no chemical analysis has been made of any of the suspected food or drink, nor of any of the excreta of the body. For some reason, however, a suspicion has been excited against the accused party. Circumstances, not yet explained, have combined to give a coloring to the suspicion, and an arrest and a trial follow. Now, it is well known that the most innocent persons may, through a combination of circumstances, be thrown into the position of, apparently, the most positive guilt. It is this fact that constitutes the danger of a too exclusive reliance upon mere circumstantial evidence. In the above case, suppose that the "expert" witnesses for the prosecution do not fully answer to the standard which we have adopted and explained in the opening of this article; they are, to be sure, highly respectable physicians—it may be, men of large experience as general practitioners, but confessedly they are not "toxicologists,"—they have not made the subject of *poisons* in all their relations a *special* study; and shall they, simply because they are called "doctors," presume to thrust themselves into the witness-box, and swear away the life or liberty of a fellow-being exclusively on what *they* take to be the infallible "symptoms" of the alleged poison, when the highest toxicological authorities declare to us that there are no such symptoms? Or should the witness happen to be a *chemical* "expert," if he content himself with a partial, unexhaustive examination of some collateral material alleged to be connected with the accused party, and if he proceed to draw positive conclusions as to the discovery of some poison, from such imperfect data, can we safely admit his testimony as strictly coming up to the proper standard of "expert" evidence?

Let us test this question by reference to a civil case: suppose it relates to the strength and resistance of steam-boilers, connected with an action for damages in a case of boiler-exposion, we would hardly look to an ordinary blacksmith—no matter how skilful a mechanic he might be, or how well acquainted with the general properties of iron—as the fittest person to enlighten the court and jury upon the questions at issue; we should rather select our "expert" from among practical boiler-makers, or practical engineers. In like manner, if the question pertains to the strength of building-materials, in a case of alleged want of skill in the construction of some large public edifice, which had given way and occasioned the loss of human life, we should be far more likely to appeal to the skilful architect or the practical builder, for an "expert" opinion, than to a common carpenter or bricklayer, although the latter may be well acquainted with the ordinary properties of wood, brick, and stone. On what higher ground, then, we ask, should the mere general practitioner of medicine presume to offer himself as an "expert" in poison cases, and to contradict the testimony of those who may have devoted a life-long labor and research to this very study? A striking illustration in point is afforded in the case of the illustrious John Hunter, who, in the year 1781, was called upon as an expert to testify in the celebrated case of Sir Theodosius Boughton, who was poisoned with laurel-water by his brother-in-law, Donellan. Mr. Hunter was called for the defence, but his ignorance on the general subject of poisons caused him completely to break down on the cross-examination, leading to a mortifying failure on his part, and rather strengthening the case for the prosecution.

If only the same failure that happened to Hunter could be made to attend the presumptuous attempts of all pseudo-experts, it would be a happy circumstance for the cause of justice and humanity; but, unfortunately, this is not the case. Under our present faulty jurisprudence which permits any "doctor" to assume the character and functions of the expert, it constantly happens that a conflict of testimony occurs between the so-called skilled witnesses of the opposite sides, not because a difference of professional opinion is usually likely to exist between *genuine* experts, but because witnesses of unequal capacity and of unequal knowledge are opposed to one another,—the true against the false, the real against the counterfeit. But all this time the ignorant public and the no less ignorant jury

are made to believe that "one expert is just as good as another,"—as we happen to know a certain learned judge said in his charge to the jury,—although the one may be simply a village doctor, or perchance a city practitioner, but both equally unskilled in the mysteries of toxicology, whilst the other may be a Christison, an Orfila, a Taylor, or a Tardieu! Alas, for any hope of a righteous verdict from such a befogged jury! And alas, with such doctrine taught from high places, for the hope of making the public appreciate the true merits of the case!

This subject assumes a far more serious and important aspect when we add to what has just been said, the not uncommon fact that the pseudo-expert for the prosecution may possibly be prejudiced against the accused party, or against his counsel; or, it may be, he is hostile to the experts for the opposite side. Such a feeling, whether consciously or not, must of necessity warp and bias his judgment, and produce a distorted view of the facts of the case. This will undoubtedly lead him to give his "expert" opinion *against* the accused; and this ill-founded *opinion* will, in its turn, exert its baleful influence over the court and jury.

Now, such a state of things is simply monstrous, and it is fraught with real danger to the community. No one knows when he or she may become the victim of some combination of circumstances that may, for a while at least, cast its blighting shadow over their path, aspersing their character, or even threatening them with death! Heaven help the unfortunate who may get entangled in such coils, and be exposed to a public trial against such fearful odds! What could he expect from a jury, instructed as above mentioned from the bench, and bewildered and deceived as to the relative value of the "expert" testimony, by a crafty and unscrupulous counsel?

Is there any remedy for this really dangerous condition of affairs? None that we can see, until some change takes place in our faulty jurisprudence in the manner of selecting "expert" witnesses. So long as the courts assume the ground that "one expert is as good as another," and at the same time refuse the real expert the privilege of sustaining his opinions by reference to standard authorities in his own department,—the only possible method that we know, by which he can fortify his positions before the jury, and exhibit to them the superiority of *his* expert opinions,—so long as this is the case, we must abandon all expectation of fairness in jury-trials, and submit to the detraction of the real experts by some vulgar and abusive counsel, who, himself fully conscious of the superiority and power of the genuine expert on the opposite side, will endeavor to break down the dreaded influence of his evidence before the jury, by a fierce and malignant personal attack upon his professional and private character.

Several plans have, at different times, been proposed for remedying this abuse. The only one that occurs to us (and this seems scarcely feasible under our present system of selecting the juries) is to try all such cases before *educated* juries, by which we mean men who have a clear comprehension of the scientific points at issue, and who are capable of appreciating the difference between the testimony of a real and of a pseudo-expert.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

AT a conversational meeting held March 26, 1873, at 8 o'clock P.M.,

Dr. H. H. SMITH called the attention of the members to the treatment of hydrocele as he had practised it with very satisfactory results for several years. After alluding to the repeated failures of the injection, seton, etc., as usually practised, and the apprehension felt by many surgeons of hemorrhage in "excision of the sac," Dr. Smith stated that he had obtained cures in from ten to fourteen days, the patients sitting up on the third or fourth day, and had had no trouble from hemorrhage, by operating as follows. Etherize the patient, make the scrotum tense, incise the skin, dartos, and connective tissue carefully for from two to five inches in the long diameter of the tumor, until the tunica vaginalis is fully exposed, the blood-vessels being outside of the sac, or in the scrotal tissues. Having freed the testicle nearly from the scrotum, puncture the hydrocele with the bistoury, empty the sac, and then trim off with the scissors the anterior half of the tunica vaginalis testis, introduce a mesh into the lower end of the wound, and close the rest of it with the interrupted metallic suture. The cure is prompt and certain.

Dr. W. L. KNIGHT said he could sustain Dr. Smith in the remarks which he had just made, as he had recently operated in a case for him. The patient sat up on the fourth day; he walked about out-of-doors in two weeks, and within four weeks was able to attend to his usual active out-door duties. The operation was accompanied with but little pain or annoyance.

Dr. J. M. BARTON had treated a number of cases in the clinic of Jefferson Medical College, in which the seton had been used, and the patients were generally discharged in as short a time as that mentioned by Dr. Smith. In one case in private practice the patient attended to his ordinary business on the fifth day, the seton having been retained for three days.

Dr. A. D. HALL referred to a case of asthenopia in the person of a strongly-built, muscular young man, a student of theology. His complaint was that he could not see the types of his text-books distinctly. Only by bringing the page extremely near the eye could he see at all, and then the effort to do so caused great pain in the eyes and brows, which continued for an hour after.

There was slight injection of the conjunctivæ, and on

the left temple was an ancient scar of Heurteloup's leech, which had been applied by a Baltimore oculist during a week's stay in his private institution. His vision was not tested at that time.

Examination by the ophthalmoscope showed no changes in the fundus oculi; but there were evidences of both astigmatism and hyperopia. At twenty feet he could only make out No. 200 of Green's letters. This is a letter $3\frac{7}{10}$ of an inch broad, by $3\frac{5}{10}$ inches high. These measurements give a better idea of the low visual acuity. Both eyes were alike. He saw horizontal lines better than vertical ones. The addition of a convex glass of fourteen inches' focus reversed this state of affairs,—vertical lines came out distinctly, while the horizontal ones became dim. (This was shown by drawings upon the blackboard, by which the presence and amount of astigmatism were got at rather more quickly than by the ordinary methods in use. It was also so simple that it did not deter those wishing to undertake its investigation by a formidable array of detail.)

He was now given a convex cylindrical glass of fourteen inches' focus, with its axis vertical, and his vision rose to $\frac{20}{30}$. But he exerted his accommodation very powerfully, and to eliminate this element of error atropine solution of full strength was instilled. It was then found that the vision rose to $\frac{20}{30}$ for both eyes, with a convex cylinder of nine inches' focus, axis as above. After the effect of the atropia had passed off, it was found that this glass was too strong for steady use, as the habit of powerful accommodation was too old and strong to be so rudely broken in upon. But with a convex cylindrical glass of twelve inches' focus, its axis vertical, his vision was $\frac{20}{30}$, and with these glasses he could read No. $1\frac{1}{2}$ of Snellen's test-types (a little larger than printers' "diamond") at eleven inches, and as near as five inches, thus making his vision almost normal for distance, and quite so for near work. That astigmatism is quite common, those who are on the lookout for it will certainly agree. In 1862 Professor Donders, of Utrecht, found it in one of every thirty eyes that he examined. Although he had not the material immediately at hand to verify the assertion, still he was inclined to think that the average has risen in the course of the thorough ventilation the subject has had in the last decade.

In the above case, without the recognition of the fact that the weakness and irritation of the eyes were merely symptoms of an effect resulting from the tension of the ciliary and internal recti muscles in their effort to compensate for the irregular refraction of the cornea, we might have gone on prescribing until the "crack of doom" for an affection which could be cured then and there by the proper adaptation of glasses.

As the subject of sympathetic ophthalmia was one which always presented interest, and too often a melancholy one to both surgeon and patient, he would mention such a case which lately engaged his attention. It was one in which there could not be said to be any real sympathetic inflammation of the sound or uninjured eye. The condition of the eye was rather that of slight irritation; and yet, in spite of enucleation at once, in anticipation of what might come rather than from actual fear of what was present, this prompt removal of a possible source of trouble utterly failed to arrest a violent destructive process in the other eye.

The patient was a fine, bright young fellow of seventeen, engaged in a planing-mill at Kaighn's Point, N. J. Two days before Dr. H. saw him, he was struck by a flying piece of wood, $13\frac{1}{4}$ inches long, $\frac{3}{4}$ inch wide, and $\frac{1}{8}$ inch thick. This produced a perforating wound $\frac{1}{4}$ of an inch in length at the middle of the inner border of the left cornea, about 2‴ back of the sclerotic junction. There was moderate injection of the bulb. The cornea was dulled by the presence of blood and opaque-lens substance as viewed by oblique illumination.

Removal of the (in his view) hopelessly injured globe as a precautionary measure was not consented to by the patient or his friends.

Twelve days after this the eye seemed to be free from any active inflammation. The blood which had obscured the view of the anterior chamber having been absorbed, there was seen to be a partial dialysis or tearing away of the iris (for its upper third) from the ciliary body. The lens was opaque, and its inner edge dislocated forward. A fortnight later he could count fingers, and with a little difficulty could distinguish the flame of a candle, with the injured eye. The amblyopia appeared to be due to the opacity of the lens. The wound had not healed over. There was some little ciliary injection of the nasal border, but the eye appeared to be steadily quieting down, and there was no sympathetic trouble of the other eye.

Three days after this he thought that he had caught cold in the injured eye. The bulb became deeply injected, but there was no involvement of the other as yet. In fact, it registered an accommodation of one-fourth. A week from this date (five and a half weeks after the reception of the injury) he complained of tenderness of the sound eye when he looked at anything for any length of time, and that strong light, although not painful, was disagreeable to him. Careful ophthalmoscopic examination revealed nothing abnormal in the fundus; his vision was normal $\frac{20}{20}$, and his accommodation was one-fourth, as before.

Enucleation of the injured bulb was again urged, and was now consented to. It was done with every prospect of success, as there was only the slightest flushing of the sound eye, and the accommodation was perfect. A week after, although the pupil of the eye was fully and equally dilated, the iris was discolored, and there was much circumcorneal injection. Iridocyclitis was set up; and as to subjective symptoms, he complained that everything appeared to him to be shrouded in mist.

The vision four days after this had sunk to $\frac{3}{10}$. From this time his vision passed through several degrees of acuity, but never improved beyond $\frac{1}{6}$. At the present date, five months after the enucleation, the eye still presents an irritable appearance; there is a slight ciliary zone; the pupil is fixed at half dilatation, of a slightly oval contour, the long axis vertical. The iris is discolored of a dirty, dull green color, while loops of new proliferations are seen fringing the circle of the uvea; new formations have also sprung from the anterior capsule of the lens, adding still more to the dulness of the parts. Now, these are certainly sad details to enumerate; and yet everything was done "in the nick of time" to save the uninjured eye (at least during the secondary period).

The great error was in the patient's declining the operation when first seen. Had he accepted it then, he would now have one good eye, instead of being blind. Granting that the vision of the injured bulb rose to quantitative perception, it was then at its maximum, and, from the nature of the injury and its severity, with its inevitable choroiditis and resulting effusions, the chronic involvement of the ciliary body in the tedious exudations and proliferations certain to drag their slow length along, it was impossible for the eye ever to be of a particle of use, but it was highly possible for it to be a most dangerous possession. And so it proved, in spite of the most anxious watching on the part of the surgeon, and the removal of the eye to all appearance as a measure anticipatory of coming evil.

Dr. H. H. Smith, in connection with the remarks of Dr. Hall, wished to call the attention of the Society to the very marked and happy results of the application of electricity in a case of blindness. A child 9 years

old suffered, eighteen months since, from bad scarlatina, followed by otorrhœa. About two months since he was accidentally found to be perfectly blind of the left eye, being unable to distinguish any light. An examination by Dr. Franklin D. Castle, with the ophthalmoscope, revealed anæmia and atrophy of the retina. The boy at this time was not aware of any light or impression made by the ophthalmoscope. The case being placed in Dr. Castle's charge, it was agreed to try the effects of electricity, applied through the eyeball by connecting the negative pole of the battery with an eye-cup of water in contact with the ball, placing the positive pole on the nape of the neck; and to combine with this the chalybeates, etc. In a day or two afterwards the "continued current" was thus applied for fifteen minutes, at the end of which time the patient recognized various objects, and now can read ½-inch type for half an hour daily, the right eye being closely bandaged. The case continued to improve, and there was reason to anticipate a permanent cure. Dr. Smith was not aware of any other marked case like this, and therefore presented it to the Society.

In reference to the case narrated by Professor Smith, Dr. HALL asked the exact nature of the lesion. If it were a case of anæmia or anæsthetic condition of the optic nerve, he could well understand that the electric stimulus might furnish "a fillip" to the halting function. He had a case under treatment in which the nerve was blanched; the field of vision contracted in its periphery; the amount of vision being $\frac{1}{200}$ for the right eye, and for the left $\frac{4}{40}$.

The man was 55 years of age, an engineer; had noticed dimness of vision of the left eye for four months. It had occurred "all at once," preceded by "flashes of light" for a day or two previous. He had no headache, nor any pain in the eye. The right eye was good at that time; two months later there was sudden diminution of vision.

He considered himself temperate. The steam and glare of his occupation caused the disease, in his own opinion.

The only appearance on ophthalmoscopic examination was a slight blanching of the papillæ.

The treatment at first pursued was moderate local depletion by the Heurteloup leech, repeated at stated intervals, and an alterative course of corrosive sublimate and potassium, followed by a tonic course of iron, quinine, and strychnia. Suffice it to say that the improvement, if it took place at all, was hard to perceive. He did not see the patient for several months, during an absence in Europe; but on his return it was found that vision of the left eye was quantitative, whilst that of the right eye was $\frac{2}{40}$. The patient was almost discouraged, and his surgeon quite so. He had "rung all the changes" of treatment, and it was feared that the case must be pronounced incurable. Just then Dr. H. happened upon Professor Nägel of Tübingen's brochure on "Strychnia as a Remedial Agent in Amaurosis," and shortly after the papers of Professor Chisolm, of Baltimore, upon the subject of subcutaneous injections of strychnia. He therefore resolved, as a "*dernier ressort*," to put this method to the test. He began, as recommended by Chisolm, with $\frac{1}{40}$ of a grain of sulphate of strychnia, on the 19th of November, 1872. This was continued each morning, increasing the strength by a few minims each day. On the 7th of December, after using ¼ of a grain of strychnia for several days, the patient said that "he saw the numbers of houses across the street quite plainly;" he also felt the effect of the previous morning's injection quite severely,—such as rigidity about the jaws and muscles of the neck; and here Dr. H.'s experience seemed to corroborate that of the other observers,—that but slight effect was produced until one mounted up among the ¼-grain doses.

22d of January, 1873, the patient was taking ⅓ of a grain by injection in the morning, and a pill of $\frac{1}{30}$ of a grain by the mouth in the evening.

He then read 3½ of Snellen's types with a +12 glass slowly.

4th of February, 1873.—Has been taking ½-grain injections in the morning, with the usual night dose ($\frac{1}{30}$ gr.) for a day or two. He now reads No. 3 of Snellen with +12 (= to ordinary newspaper type).

The ½-grain injections were continued daily, and on the 3d of March he stated that he saw the *North American* newspaper better than he had done for three months previous, and that his distant sight was better also, although the snow on the ground was unfavorable for clear vision. A member of his family also said that his vision was "fifty per cent. better."

REVIEWS AND BOOK NOTICES.

THE MEDICAL AND SURGICAL HISTORY OF THE WAR OF THE REBELLION (1861–1865). Prepared, in Accordance with Acts of Congress, under the Direction of Surgeon-General JOSEPH K. BARNES, United States Army. 2 vols. 4to, pp. 1134 and 819. Washington, Government Printing-Office, 1870.

We think that a just pride will be felt by the American medical profession, and indeed by our countrymen generally, in these admirable volumes. They afford a singular proof of the intellectual activity which could, amid all the horrors of civil war, coming suddenly upon a nation "quiet and secure," as the Scripture has it, not only grapple with the great issues of the contest, raise men, money, and supplies, but develop a medical organization and a hospital system which is at the present time a model for such services throughout the civilized world; and, beyond all this, could utilize the fearful experiences of the struggle so as to crown its results with a contribution to science such as that we have now to notice.

Nor does it seem as if any one acquainted with the early history of the war, and especially of the Army Medical Department, could fail to be reminded, by these volumes, of the valuable services rendered during his brief career as Surgeon-General by Dr. William A. Hammond. His harsh dismissal, on grounds partly technical and partly personal, but in no way touching his integrity, took the work he had so ably begun out of his hands. It had, however, acquired a definiteness and a momentum which were fully recognized by his successor, the present chief of the army medical service, who has shown not only zeal and activity, but enlightened judgment, in his administration.

The first volume opens with a prefatory note, by Surgeon-General Barnes, briefly sketching the history and objects of the work. Following this is an introduction, by Surgeon J. J. Woodward, to whom the medical portion of the task was assigned. We learn from this that the basis of the statistical tables is slightly modified from that adopted by Dr. Farr, the English statician, and is as follows:

"Class I. Zymotic Diseases.—Order 1, Miasmatic. Order 2, Enthetic. Order 3, Dietic.

"Class II. Constitutional Diseases.—Order 1, Diathetic. Order 2, Tubercular.

"Class III. Parasitic Diseases.

"Class IV. Local Diseases.—Order 1, Of the Nervous System. Order 2, Of the Eye. Order 3, Of the Ear. Order 4, Of the Organs of Circulation. Order 5, Of the Respiratory Organs. Order 6, Of the Digestive Organs. Order 7, Of the Urinary and Genital Organs. Order 8,

Of the Bones and Joints. Order 9, Of the Integumentary System.

"Class V. Wounds, Accidents, and Injuries.—Order 1, Wounds, Accidents, and Injuries. Order 2, Homicide. Order 3, Suicide. Order 4, Execution of Sentence."

The tables arranged on this plan are based on the Monthly Sick Reports made to the Department, and are arranged in years corresponding with the fiscal years, which end on the 30th of June. The statistics of the white troops embrace officers as well as enlisted men; those of the colored troops include the enlisted men only, the officers being all white. They are derived immediately from a comparison of data obtained from three sources,—viz., the Adjutant-General's office, the Quartermaster-General's office, and the Surgeon-General's office; and the amount of labor involved is scarcely conceivable. *Seven hundred and twenty-six* pages are occupied by these tables, which do not include, of course, the killed in battle.

Surgeon Woodward's explanatory introduction—which, by the way, contains a brief but interesting sketch of the development of the system of post, regimental, division, and general hospitals—should be carefully read and weighed by all who would consult these most valuable statistics.

The appendix to this part, occupying three hundred and sixty-five pages, consists of Reports of Medical Directors, and other documents, constituting a very important contribution to the history of the war.

In the second, or surgical volume, prepared by Surgeon George A. Otis, we have first an explanatory introduction, containing much matter of interest. We note a sad but honorable record of medical officers killed and wounded in the discharge of their duty. Nineteen lost their lives in battle; thirteen were killed by partisan troops, guerillas, or by rioters; eight died in consequence of wounds, and nine of accidents; while seventy-three were wounded in action.

A chronological summary of engagements and battles, with the number of Union troops engaged, and of killed, wounded, and missing on both sides, covering one hundred and six pages, leads to the scientific portion of this volume, which is devoted to the discussion of wounds and injuries of the head, chest, and spine. Wounds of the abdomen and pelvis will be treated of in the next volume.

We greatly regret that our limited space wholly precludes any attempt at an analysis of the matter contained in these pages, which are amply and admirably illustrated. Surgeons will find in them a mine of information worthy of the closest study and reflection.

GLEANINGS FROM OUR EXCHANGES.

Insanity.—We take the following from a lecture by Dr. C. B. Radcliffe, in the *British Medical Journal* for April 5:

"That state of mind to which is given the name of melancholy is so common among lunatics, that melancholy and insanity have been used as mutually convertible terms. The anatomy of melancholy, to go no further, is a treatise on insanity. In some cases, of course, this state of mind is not so obvious as in others, and it may be difficult to detect it if the patient be reticent. In the more aggravated cases there is no such difficulty, the patient often sitting hour after hour, or day after day, motionless, with clasped hands and woebegone features, or else, driven past endurance by feelings of anguish and despair, continually moving about, moaning or wailing, wringing his hands, praying for death, or even seeking it, too often successfully, at his own hands. As a rule, this state of mind would seem to be the very reverse of that which shows itself in inordinate self-esteem, the patient often believing himself to be thoroughly bad and wicked in every way, with a dreadful doom in store for him both here and hereafter. And the more marked delusions in association with melancholy are in conformity with this idea. I know, for example, a miserable man, long a victim to deep melancholy without delusion, whose delusion now is that he is a murderer, condemned and left for immediate execution, who will not look out of window lest he should see the gallows, and who, whenever the handle of his door turns, expects the executioner. And the cases are legion of those who think that they have committed the unpardonable sin, for which their inevitable doom is everlasting destruction. It would also seem that this terrible self-depreciation may lead to another kind of delusion, the very opposite of that to which inordinate self-esteem would seem to lead in some cases,—namely, to a loss of personal identity, in which the idea of self is lost, as it is lost in lycanthropy. At all events, I know of one case in which there were true fits of lycanthropy, or rather cynanthropy, where the settled melancholy, which was the predominant state between the fits, had its origin in what may be spoken of as the *worm-doctrine* of human nature, and in the miserable forebodings as to the future to which it led. But, be the relation of this, or any form of delusion, to melancholy what it may, the facts remain not only that melancholy is a morbid feature in insanity, but that melancholy, more or less deep, without delusion, must have assigned to it a very prominent position among the symptoms of incipient insanity.

"There are, no doubt, many variations and many combinations in the symptoms of incipient insanity. Sometimes one or two of the symptoms only are present, to the exclusion of the rest. If all are present,—an almost inconceivable case,—then there would be a state of intense self-conceit without actual delusion; a state of moroseness and misanthropy without actual delusion; a state marked by great mistrust and suspicion, without actual delusion; a state of uncontrollable impulsiveness without actual delusion; a state of melancholy without actual delusion; a warped state of the intellect without actual delusion, irregularity of fancy showing itself in illusions and hallucinations; and, lastly, a tendency to delirious excitement. In actual insanity one or more of these several morbid mental conditions is always present, the change which has happened consisting only in the addition of some actual delusion, which delusion very often, to say the least, may be looked upon as the natural result of the exaggeration of the morbid mental condition most closely associated with it."

Myotomy before Cataract Operations.—Mr. Edwin Chesshire, Senior Surgeon to the Birmingham and Midland Eye Hospital, advocates, in the *British Medical Journal* for April 5, section of the orbicular muscle and integument of the outer canthus as a preliminary to the extraction of cataract.

The advantages he claims for this are "more extensive exposure of the globe, which enables the operator to manipulate his instruments, and to make his section through the cornea with greater ease. And the spasmodic contraction of the orbicular muscle being overcome, the operator is left to complete his operation at his leisure; while all risk of sudden protrusion of the lens, followed as it sometimes is by prolapse of the iris and escape of the vitreous, is almost entirely avoided; and the contraction of the lids on the globe, which is sometimes a troublesome symptom in the after-treatment of cataract-extraction, is prevented.

"With division of the orbicular muscle, the wire speculum, which greatly facilitates each step of the operation, may be used without injury or annoyance to the patient. No sutures are required, as the divided surfaces readily unite, and scarcely leave a trace behind them. All that is necessary to be done is to keep the eyelids nicely in apposition for a few days after the operation by means of strips of court-plaster. All bandages and other coverings after extraction are to my mind objectionable, as it is important to have the fullest opportunity of examining the appearance of the lids without disturbing the patient by the removal of external appliances. Moreover, the support afforded by the lids to the corneal flap, when nicely kept in position by strips of court-plaster, is very agreeable to the patient. Spasm may be brought on, and the partially-healed corneal flap may be opened, by the removal of bandages, wool, etc., which may have become adherent to the lids.

"The operation is done as follows. A wire speculum is placed between the lids, to enable the operator to make his section through the muscle and integument at the external canthus with precision and ease. I have made no allusion to the mode of extracting, as the plan I propose is equally applicable to all extractions. I never use chloroform or ether in extraction, as the sickness which frequently follows their administration far outweighs any advantage that may otherwise result from the use of anæsthetics during the operation; and with the orbicular section, the globe being more under control, they are still less required. Where great neatness is desired, the section may be made subcutaneously."

Acute Bronchocele (*British Medical Journal;* from the *Archiv der Heilkunde*, vol. xiv. No. 6).—Dr. Ludwig (of Pontresina) describes the case of a gentleman who, after suffering from violent paroxysms of cough for some days, was suddenly seized with a swelling on the front of the neck, which impeded respiration. There was found to be an elastic swelling extending downwards from four centimetres below the middle of the thyroid cartilage nearly to the sternum, and to the sterno-mastoid muscle on each side. In the course of a few hours, it increased to the size of a child's head; the dyspnœa became more intense, and deglutition was difficult. There was no pulsation in the tumor. Soon, however, it began to diminish; and the next day it had entirely disappeared. Ludwig regards the case as one of acute hyperæmia of the thyroid body, but cannot assign a cause.

On Temperature in Phthisis.—In an inaugural thesis published on the above subject by Dr. Bilhaut, the author puts down the following, among other conclusions. From the outset of the disease the temperature rises; towards the end of the disease there is often a marked decrease of temperature; diarrhœa and abundant hæmoptysis produce a fall of temperature; differences of temperature show the gravity of the disease; slow asphyxia and inanition induce a fall of temperature towards the approach of death; the tracings in cheesy pneumonia seem to be more regular as regards vesperal exacerbations and morning remissions than the tracings in tuberculosis; the complications of the disease modify the form of the tracings.

MISCELLANY.

Leprosy in the Sandwich Islands.—The Honolulu *Gazette* says, "Dr. Trousseau and Hon. S. G. Wilder, of the Board of Health, visited the Leper Hospital at Kalaupapa, on Molokai, on Wednesday and Thursday of last week. They found the settlement numbered over 600 persons, of whom about 120 were the natives who lived in the village prior to its selection as a hospital site, who, as owners of the land, prefer to remain on it. There are over 400 lepers, and about 100 relatives, who have gone there self-banished rather than be separated from their kin. The patients, gathered there from every island of the group, were as contented as could be expected. No complaint was made by any one, and, in answer to inquiries, all said they had an abundance of food and everything they wanted. Few realize the magnitude of this work. The plague is extending, and, with all the vigilance of the authorities to check it by isolating every new case, it is rapidly spreading, chiefly among the young, who inherit it from their parents. The very worst cases are boys and girls; and to establish and carry out the rule that every child tainted with the disease must be torn from its parents and banished for life among strangers and lepers, seems cruel. Yet this is now being done every month with natives."

At the recent meeting of the British General Medical Council on Education and Registration, the name of Dr. Matthew Bass Smith was ordered to be erased from the *Register*, for "infamous conduct in a professional respect," in seducing a female patient.

Another charge, that a surgeon had "stated or insinuated, or used language from which the inference might be drawn," that he had committed adultery with a married patient of his, was decided not to be sustained by the evidence.

"The case of James Mawhinney, supposed to be a registered person, convicted of theft at Stirling, was deferred for legal evidence of identity."

The name of Dr. Frederick Henry Morris, erased from the *Register*, "in consequence of his conviction on an alleged charge of indecent assault," in 1871, was ordered to be restored.

[If such cases exist in this country, as they very probably do, there is no central authority to take cognizance of them.—Ed.]

Inhumanity.—An inquest was lately held in London respecting the death of Elizabeth Jackson, aged 18, a domestic servant. Her mistress, learning that she was feverish, told her she had better go, as she did not want anybody in such a state there. The deceased then went to a Mrs. Foley, who, however, finding she was feverish, also turned her away. The deceased was provided with a bed by a Mrs. Henley, but was taken out and placed on the stones when it transpired that she had a fever. A police constable, finding her insensible on the stones, had her removed to the hospital, where she died from inflammation of the brain. The coroner said that he had never had a worse case of inhumanity before him. The women might have taken the deceased to the infirmary instead of turning her into the streets. The jury returned a verdict in accordance with the medical evidence.

Powerful Medicines.—A homœopathic practitioner writes to one of their periodicals that he has a score of

times known medicine prescribed by him to break the glasses in which it was mixed, and that other physicians of the same faith had found it a very common thing. He says, "I have had glass broken by belladonna 30th, mercurius solubilis 6th and 12th, pulsatilla 30th, and also by colocynth 2d, but never by any potency lower."

It certainly seems like heroic practice to put such articles (*if* the story be true) into the human stomach.

PROFESSOR TYNDALL, during his recent scientific lecturing tour in the United States, delivered in all thirty-five lectures, at which his receipts aggregated $23,100. After paying expenses, a fund of over $13,000 remained; and this, before leaving for Europe, he placed in the hands of a committee, who are authorized "to expend the interest in aid of students who devote themselves to original research." The committee are Professor Joseph Henry, of the Smithsonian Institute; Professor E. L. Youmans, of Yale College; and General Hector Tyndale, of Philadelphia.

THE Association of American Medical Editors will meet at St. Louis on Monday evening, May 5, at 8 o'clock.

The American Medical Association begins its session the next day. We have not, as yet, heard whether or not the attendance is likely to be large.

THE Chief of the Medical Division of the Pension Office is about to make a pretty thorough reorganization of his corps of examining surgeons throughout the country, since a number of them, it is alleged, are not so prompt and careful in their duties as it is desirable that they should be.

THE carcass of a horse was dissected in Edinburgh a few weeks since with the result of extracting from the stomach a large dust-ball as hard as stone, about twenty-three inches in circumference, and weighing eight pounds. The animal had been fed on mill-dust.

THE Indianapolis *Journal* complains that, in making post-mortem examinations, the doctors of that place use a wood-saw, a butter-knife, and an axe.

A FRENCH physician has discovered that the death-rate in Paris has increased in proportion as cravats have decreased in size.

BARON JUSTUS LIEBIG.—The death of this eminent authority in chemistry and physiology, at the age of 70, is announced.

THE directors of the Bank of England have voted £1000 in aid of the London Hospital Extension Fund.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending April 19, 1873, were 357; 175 adults, and 182 minors. 11 were of bodies brought from the country; making the mortality of the city 346. Among the assigned causes of death were:

Consumption of the Lungs	55
Other Diseases of the Respiratory Organs	63
Diseases of the Circulatory Apparatus	16
Diseases of the Brain and Nervous System	60
Diseases of the Digestive Apparatus	28
Zymotic Diseases (9 from Scarlet Fever)	30
Typhoid Fever	5
Casualties	11
Cancer	9
Tumors	2
Syphilis	3
Exposure	1
Debility (including "Inanition" and "Marasmus")	24
Still-born	23
Old Age	11

(The interments reported for the week ending April 20, 1872, were 361.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER. Max.	Min.	BAROMETER. (2 P.M.)
April 13	52.0°	43.0°	29.99 in.
" 14	60.0	49.0	29.96 in.
" 15	59.0	49.5	30.06 in.
" 16	56.0	46.0	30.26 in. (Rain.)
" 17	47.0	39.0	29.87 in. (Rain.)
" 18	58.0	43.0	29.80 in.
" 19	58.0	49.0	29.86 in. (Showers.)

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM APRIL 15, 1873, TO APRIL 21, 1873, INCLUSIVE.

MCLAREN, A. N., SURGEON.—Granted leave of absence for sixty days, to take effect from May 1, 1873. S. O. 14, Military Division of the Atlantic, April 16, 1873.

By S. O. 82, War Department, A. G. O., April 18, 1873, the following changes are made:

The following officers are relieved from their present duties, and ordered to report in person to the Commanding Generals of the Departments to which they are respectively transferred, for assignment to duty:

SMITH, ANDREW K., SURGEON, from the Department of the South to that of the Missouri.

GRAY, CHARLES C., SURGEON, from the Department of the East to that of Texas.

FRYER, BLENCOWE E., SURGEON, from the Department of the Missouri to that of the East.

WEEDS, JAMES F., SURGEON, from the Department of the South to that of Dakota.

MIDDLETON, J. V. D., ASSISTANT-SURGEON, from the Department of the Gulf to that of Dakota.

WOODHULL, ALFRED A., ASSISTANT-SURGEON, relieved from duty in the Department of the Missouri, to proceed to Baltimore, Md., and report by letter thence to the Surgeon-General.

The following officers are relieved from duty in the Departments set opposite their respective names, will proceed to New York City, and report thence by letter to the Surgeon-General:

GREENLEAF, CHARLES R., ASSISTANT-SURGEON, Department of the Columbia; AZPELL, THOMAS F., ASSISTANT-SURGEON, Department of California; BREWER, JOHN W., ASSISTANT-SURGEON, Department of the Missouri; KOERPER, EGON A., ASSISTANT-SURGEON, and PATZKI, JULIUS H., ASSISTANT-SURGEON, Department of Texas.

WHITE, R. H., ASSISTANT-SURGEON.—Relieved from duty at Mobile, Alabama, and to comply with S. O. 74, c. s., A. G. O.

CORSON, J. K., ASSISTANT-SURGEON.—Assigned to duty at Mobile, Alabama.

SATURDAY, MAY 3, 1873.

ORIGINAL LECTURES.

LECTURES

ON THE SURGERY OF THE NARES, LARYNX, AND TRACHEA.

BEING THE MÜTTER LECTURES FOR 1872.

Delivered before the College of Physicians of Philadelphia,

BY J. SOLIS COHEN, M.D.

Reported by R. M. BERTOLET, M.D.

(Continued from page 467.)

LECTURE X.

TUMORS OF THE NASAL PASSAGES.

TUMORS are frequently developed in the nasal passages, and in their communicating cavities and sinuses. They originate from the mucous membrane, for the most part, but sometimes from the perichondrium or the periosteum.

The symptoms of a tumor in the nasal passages are, more or less obstruction to nasal respiration, sometimes hemorrhage, sometimes deformity; and these symptoms become pronounced so gradually that professional attention is not often attracted to them until the tumor has gained some considerable size. They are rarely attended with pain; but there is an annoying sensation of stuffing up of the nostrils, or obstruction at the posterior nares, more marked at irregular intervals, most frequently during change of moisture and temperature. These sensations induce sneezing, hawking, nasal excretions, and a frequent desire to use the handkerchief. Sometimes these symptoms resemble those of asthma so closely as to lead an unobservant medical attendant to the diagnosis of that affection. The sense of smell becomes impaired, and diminishes in acuteness with the growth of the tumor. If the tumor encroaches upon the outlet of the nasal duct, epiphora may be produced. If it encroaches upon the pharyngeal orifice of the Eustachian tube, more or less impairment of hearing may be produced. If it obstructs the outlet of the maxillary sinus, the development there of a cystic or other growth may be induced.

Tumors are apt to be attended with chronic catarrh, and there is a more or less constant discharge of mucus, or of mucus and pus, not infrequently mingled with blood, if the tumor is vascular and its vessels delicate. Osseous, carcinomatous, and fibroid tumors are often accompanied by the more familiar myxoma, or gelatinoid polypus; and, in some instances, the existence of the more serious trouble is not detected until the removal of the minor ones. Where the tumor is large and of soft consistence, portions become detached, and are expelled by sneezing or by blowing the nostrils.

The variety of tumor most frequently developed in the nasal passages is the myxoma, or gelatinoid polypus. It originates in an enlargement of the acinous glands of the mucous membrane, the mucous membrane itself becoming hypertrophied and elongated, so that a narrow pedicle is thus formed; and the tumor acquires somewhat the configuration of an oyster, of a dull, dingy-whitish color. Its consistence is soft, its surface smooth, and it hangs downward into the nostril or backward into the pharynx, being attached to one of the turbinated bones. It varies in size from the bulk of a small bean, to a magnitude sufficient to obstruct respiration completely, or to distend the nose out of shape. It is occasionally solitary, but more frequently multiple.

The fibroma is a less frequent variety of tumor, red in color, of firmer consistence than the myxoma, more irregular in contour, and usually attached by a broad base, though sometimes by a pedicle. It is generally single, and takes its origin in the submucous connective tissue, or in the perichondrium or periosteum, as the case may be. It is liable to develop in every direction, protruding into the pharynx, and sending out prolongations into the neighboring sinuses, where its subsequent development produces a characteristic deformity of visage denominated frog-face.

Adenomata occur still less frequently. They are developed from the glands of the mucous membrane, and may attain great size, and extend to the smallest anfractuosities of the nasal passages and adjacent sinuses.

Neuromata have occasionally been encountered in the nasal passages.

Epitheliomata and encephaloid tumors sometimes involve the nasal passages, but usually originate outside of them. The disease eventually involves all the adjacent tissues.

Enchondromata have been found developed in connection with the nasal septum.

Osteomata are occasionally developed in the nasal passages. They are not mere exostoses or osseous sarcomata, but true bony tumors, of cancellated or of compact tissue, wholly unconnected with the normal bone, and developed primarily in the submucous or fibrous tissue. The pressure of the tumor upon the normal bony structure may lead to its absorption, but the tumor remains essentially a distinct growth. These tumors increase slowly in size, producing great deformity; their pressure upon the nerve-tracts eventually exciting intense pain, which may involve all the branches of the fifth pair. When it has acquired considerable bulk, the tumor may be detected by the finger in the nostril, or may become visible exteriorly. At first it is covered by mucous membrane, but this gradually gives way, and the osseous nature of the tumor can be detected by the touch.

The operative removal of nasal tumors is frequently indicated. They are not amenable, as a rule, to any other treatment, though there are some instances recorded of their destruction by astringents, cauterization, and electrolysis.

The myxoma and the pedunculated fibroma are usually removed by torsion with slender but strong forceps, passed well over the pedicle of the growth

so as to tear it from its attachment. If several tumors are present, it is considered best to remove them all at one sitting, if this be possible. The blood lost in these operations is usually washed out by syringing; if the hemorrhage is at all profuse, astringents and ice are applied locally; and if these fail, the nostrils are plugged back and front by the nasal tampon. Sometimes these tumors are removable by the wire snare, a less painful operation than torsion, and less apt to tear away portions of the turbinated bones. The galvano-caustic loop is also used for the same purpose, and has the advantage of being productive of less hemorrhage.

When the tumor is deeply situated, or hangs into the pharynx, it is often encircled by a wire loop passed through the nostrils; the loop is then pushed up behind the growth as high as possible, and a suitable canula slid over the free ends of the wire to the growth, which is then compressed by traction upon the wire. Sometimes the tumor is merely strangulated in this way, and allowed to slough off; under which circumstances it is to be secured by a thread reaching outside of the mouth and confined to the ear, so as to prevent the tumor from falling off, at an inopportune moment, into or upon the larynx.

The tendency to repullulation of tumors removed from the nasal passages is restrained by the local application of astringents and caustics.

Tumors with extensive attachments sometimes require access to be made to them by external incision through the nose or upper jaw, various operations for which have been performed with such modifications as are suggested by the nature of the case.

Osseous tumors are removed by gaining complete access to the body of the tumor from the outside, when, if cancellated tissue predominates, it may be crushed with the forceps and removed in fragments. The compact or eburnated osseous tumor cannot be crushed in the forceps, or even cut with the chisel. Free access must be had to its largest portion, and all constrictions removed, whether soft or bony. It is then seized with strong forceps and easily dislodged by traction from one side to the other, coming away in mass, or in masses. The bones have frequently to be resected in part, and turned aside, in order to get access to these tumors.

Electrolysis has been successfully applied by Nélaton, Bruns, and others, to produce decomposition and absorption of extensive fibroid tumors; and it has been claimed that, in some of these successful cases, any ordinary surgical procedure would have compromised the life of the patient, on account of the size of the tumor, its location, and the nature of its attachments.

A MOVEMENT is on foot to establish a medical club in Paris,—the *Cercle Médical*. It is to include in its membership Parisian and provincial physicians, and students of medicine. A library is to be one of its chief features. The annual contribution will be one hundred francs for Parisian and twenty francs for provincial doctors, and sixty francs for students.

ORIGINAL COMMUNICATIONS.

ON THE ACTION OF DIGITALIS UPON THE CIRCULATION.

BY DR. H. C. WOOD, JR.

THE action of digitalis upon the heart of the frog was, I believe, first investigated by M. Vulpian,* who has been followed by numerous observers, among whom may be mentioned W. Dybkowsky and E. Pelikan,† A. B. Meyer,‡ Legros and Legroux,§ Claude Bernard,§ Rudolf Boehm,‖ Homolle,¶ Gourvat,** Fothergill,†† Fagge, and Stevenson.‡‡

The statements of these investigators agree in all essential points. One or two of them have occasionally noted a primary brief acceleration of the heart's action; but the rarity of its occurrence shows that it has been probably produced by some extraneous unnoted influence.

The first distinctive action of the drug is a marked lessening of the number of cardiac beats per minute, due to a prolongation of the diastole, which may be complete, but is more generally divided by an abortive attempt at ventricular contraction. The systole is abnormally energetic, so that the ventricles become white as the last drop of blood is squeezed out of them. As the action of the drug becomes more intense, the rhythm of the heart is very much affected, the ventricle and auricle no longer beating in accord. At the same time the diastole generally becomes imperfect, one portion of the ventricle maintaining its systolic spasm, while the rest dilates. Thus the extreme apex may remain hard and white during the diastole, and even hernial protrusions of the ventricle may occur. Finally, the heart is arrested in systole; and as the muscle so hardens, of course all its power of responding to electrical or other excitants is lost.

In some rare instances, instead of the above series of phenomena, the diastolic periods throughout are prolonged and quiet, and after several periods of relaxation, lasting for ten or twenty seconds, final diastolic arrest may occur.

As both Boehm (*op. cit.*, p. 163) and Dybkowsky and Pelikan (*loc. cit.*) have found that the slowing of the heart's beat, the increased energy of contraction, the irregularity and final systolic arrest, are produced by digitalis after division of the vagi and destruction of the spinal cord, and as both Ackermann §§ and Boehm have found that the paralyzing of the peripheral ends of the vagi by atropia does not prevent the phenomena just alluded to, it is evident that the drug acts directly upon the heart-muscle itself, a conclusion which is confirmed by Eulenberg and Ehrenhaus,‖‖ who found that digitalis, when

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* Comptes Rendus de la Société de Biologie, 1855, p. 70.
† Zeitschrift für Wissenschaftliche Zoologie, Bd. xi., 1862.
‡ Arbeiten aus dem Physiologischen Institut zu Zürich (quoted by Boehm).
§ Quoted by Gourvat.
‖ *Pflüger's Archiv für Physiologie*, Bd. v., 1872.
¶ *Archives Générales de Médecine*, July, 1861.
** *Gazette Médicale de Paris*, 1871.
†† Digitalis. London, 1871.
‡‡ Proceedings of the Royal Society (London), vol. xiv.
§§ Quoted by Boehm, *op. cit.*, p. 158.
‖‖ Quoted by Dr. T. Lauder Brunton, On Digitalis, London, 1868, p. 50.

locally applied, acts at once upon the heart. On the other hand, the inhibitory activity of the peripheral ends of the pneumogastrics is without doubt increased by the drug. There is no stage in which stimulation of the vagi does not cause diastolic arrest. Indeed, Dybkowsky and Pelikan have seen galvanization of the nerves produce such relaxation in the auricles after the ventricles had already become permanently contracted. Further, Boehm has found that a stimulation of the pneumogastrics which is insufficient to make itself felt before poisoning will, after the exhibition of digitalis, cause diastolic arrest lasting for many minutes.

It appears, therefore, that the peripheral cardiac inhibitory apparatus shares in the stimulant action of digitalis; and, as Boehm has found that diastolic arrest never takes place in frogs poisoned with the drug, after section of the vagi, it is probable that this rare mode of death is really due to super-excitation of the inhibitory cardiac nerves.

Rudolf Boehm (*op. cit.*, p. 170) has investigated the influence of digitalis upon the working power of the heart when freed from all connection with the central nervous system. By using the method of Ludwig and Coats, he obtained as a constant result that the amount of work done was increased by small doses of digitalis; that, after large doses, a similar increase was followed in a short time by very great diminution in the expenditure of power by the heart, a diminution apparently due to imperfect diastole and consequent non-admission of serum into the viscus.

The elaborate experiments of L. Traube* upon warm-blooded animals showed that in dogs moderate doses of digitalis produce increased arterial pressure, with lowering of the rate of the cardiac pulsation. When toxic doses were used, these phenomena were followed by increase of the pulse-frequency and fall of the arterial pressure, which did not commence at the same time, since the maximum pressure was not reached until the pulse had risen above the original, normal point.

Boehm (*loc. cit.*) has confirmed these results, and has also noticed a very marked dicrotic pulse, evidently due to an abortive ventricular contraction during diastole, precisely as occurs in frogs.

The experiments of Brunton (*loc. cit.*) and of Gourvat (*loc. cit.*) also are in accord with those of Traube; so that it may be considered proven that in mammals moderate doses of digitalis produce rise of arterial pressure with diminished pulse-rate.

Prof. L. Traube has found that, after section of the vagi, digitalis is in warm-blooded animals, with rare exceptions, incapable of reducing the pulse-rate, and, contrariwise, that when the pulse-frequency has been reduced by the drug, section of the nerves causes an immediate and very marked rise in the rate of pulsation. I believe Boehm† has experimentally confirmed this; and in the single experiment of Gourvat a similar result was attained.

The conclusion would seem to be inevitable, that in mammals the reduction in the pulse produced by digitalis is directly or indirectly owing to an excitation of the peripheral inhibitory apparatus. The occasional reduction of the pulse-rate after section of the pneumogastrics shows, however, either that the inhibitory nerves in some animals find another path than the pneumogastrics, or else that there is an additional—sometimes inoperative, sometimes efficient—cause of the reduction of the pulse-rate. As it has been shown that digitalis is capable of slowing the beat of the isolated heart of the frog, it would appear probable that it may exert a similar influence at times, in mammals, upon the cardiac muscle or its contained ganglia.

Although digitalis does increase the muscular energy of the heart, it seems scarcely possible that the enormous rise of pressure produced by it can be owing to this alone. This *a priori* reasoning has received experimental confirmation from Malan,‡ Fothergill (*loc. cit.*), Gourvat (*loc. cit.*), and Ackermann.§ The first three of these investigators have found that the arterioles of the frog's web undergo very decided contraction after the systemic use of digitalis; and Ackermann states that if the abdomen of a rabbit be opened so as to expose the arteries of the mesentery, a very marked contraction, even to the partial obliteration of the lumen of the vessels, can be readily seen to follow the exhibition of digitalis.

According to Boehm, Traube found that if the spine be divided, digitalis is powerless to increase the arterial pressure, although lessening, as usual, the pulse-rate. The same authority also states that Bezold has seen an excessive fall of the arterial pressure ensue immediately upon the division of the spinal cord in an animal under the influence of digitalis. Further, in his own experiments, Boehm has attained similar results, or, in other words, has found that after separation of the small vessels from the vaso-motor nerve-centre, digitalis does not increase arterial pressure.

These experiments would appear to prove that digitalis acts upon the vessels by stimulating the vaso-motor centres in the base of the brain; but they have been contradicted by Ackermann (*op. cit.*, p. 397), who states that he has many times cut the spinal cord, and without exception found a very marked rise of arterial pressure follow the injection of digitalis. Unfortunately, none of these experiments have, that I am aware of, been published in detail, and it is therefore impossible to analyze or reconcile them. It must be considered undetermined whether Professor Ackermann is or is not correct in asserting that digitalis acts directly upon the peripheral vessels themselves.

From the evidence which has been brought forward, it may be considered as definitely proven that in mammals digitalis in therapeutic doses is a powerful stimulant to the circulatory system.

The following proposition expresses our present knowledge, and probably is very close to the truth:

Digitalis in moderate doses stimulates the mus-

* Gesammelte Beiträge zur Pathologie und Physiologie, Bd. i., Berlin, 1871.

† His language is such as to leave the point somewhat doubtful. (*Op. cit.*, pp. 188, 189.)

‡ Quoted by Fothergill (*op. cit.*).

§ Ueber die Wirkungen der Digitalis: Volkmann's Sammlung Klinischer Vorträge, No. 48, Leipsic, 1872.

culo-motor portion of the heart (probably its contained ganglia), increases the activity of the inhibitory apparatus, and causes contraction of the arterioles. As a consequence of the first action, the cardiac beats become much stronger; as the result of the last, there is narrowing of the blood-paths, and to the passage of the vital fluid an increased resistance, which, acting on the already excited inhibitory system, aids in the slowing of the pulse. Toxic doses of digitalis paralyze or weaken, more or less completely, each of the three systems, and cause rapidity of the pulse and falling of the arterial pressure.

According to my own experience, decided therapeutic doses of digitalis, in man as in other mammals, produce great reduction and sometimes dicrotism of the pulse, and increase the size and force of the wave; at the same time the arterial tension is augmented. Poisonous doses induce, after a time, increase of the pulse-rate, with smallness and weakness of the wave and lowered arterial pressure.

Sphygmographic studies of the effect of digitalis upon persons suffering from various acute and chronic diseases have been made by M. Legroux, M. Bordier,* Constantine Paul,† and Paul Lorrain.‡ The problems offered by these gentlemen are so complex as to render a detailed study almost impossible; but, as a whole, their tracings seem to confirm my personal experience. Paul Lorrain calls attention to the fact that when the drug has reduced the pulse-rate very greatly, a second abortive systole can, on auscultation, sometimes be heard occurring during the long diastole, and some of his sphygmographic tracings are markedly dicrotic. It is evident that in man the second systolic movement occurs precisely as in animals; and it seems very certain that the proposition framed for the lower mammals applies also to man.

When the pulse has been reduced by digitalis to forty or fifty a minute, the change from the recumbent to the erect position will not infrequently suffice to alter at once its character, so that it will become feeble, small, and 150 per minute. The experiments of Traube, which have already been mentioned, afford an explanation of this phenomenon so simple that it can scarcely be else than true. The action of the drug in such a case is verging upon the point at which the pulse-rate increases, and the arterial pressure falls, owing to the partial paralysis due to over-stimulation. Whilst the patient is recumbent, the line is not passed over, but the additional stimulation of the erect position carries the circulatory system beyond the limit of simple stimulation, and the over-effects of the drug are at once manifested.

Dr. Hanot recently reported to the *Société de Biologie* in Paris a case in which uræmia, supervening on general paralysis, was diagnosed by the symptom pointed out by Bourneville,—a rapid and general decline of temperature.

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* *Bulletin Thérapeutique*, 1868, p. 110.
† *Ibid.*, p. 193.
‡ *Journal de l'Anatomie et de la Physiologie*, 1870.

GONORRHŒA AND STRICTURE TREATED WITH URETHRAL SUPPOSITORIES.

BY HENRY E. WOODBURY, M.D.

In an age so progressive as that in which we live, it behooves the practitioner of medicine to keep up with the spirit of the times. Many theories that in years gone by were considered orthodox by our profession have long since fallen to the ground; and, no doubt, many that now obtain will meet with a similar fate in the future. This cannot fail to be the case so long as the science of medicine is not an exact science, and the type of diseases is so subject to change. While, therefore, old ideas are becoming obsolete, and new theories are springing up to take their places, it becomes doubly imperative upon the members of our profession that they investigate calmly and carefully every new plan presented for the treatment of diseases, as the community must look to us for relief from suffering. If we are unable to afford this in cases that are remediable, we shall incur that most unpleasant of all imputations,—inefficiency in the discharge of our professional duties.

Believing that any and every improvement upon old and established modes of treatment should be communicated to the profession, I propose to give a brief outline of my experience in the management of gonorrhœa and stricture,—diseases that often tax in the highest degree the skill, as well as the patience, of the physician or surgeon.

As in the treatment of fractures and some uterine diseases a certain amount of mechanical ingenuity is essential to success, so in regard to the diseases we are about to consider in this paper does the same fact obtain with equal force,—diseases as wide-spread as the race of man, brought on by his own imprudence (in the majority of cases), and often so long neglected that they assume an almost incurable type.

In 1867, the March and April numbers of the *Lancet* contained articles on the treatment of gonorrhœa by the eminent surgeons connected with the London hospitals. These I read with interest, and, reflecting upon the pathology of the disease, I determined to ascertain what the effect would be if I made my applications to the parts affected in such a manner as to have them longer retained in contact with those parts than they could possibly be by the old method of injection. I therefore prepared certain ointments of suitable consistency, to be applied with a female or common gum catheter. The medicinal agents used were nitrate of silver, calomel, sulphate of zinc, and bismuth. Of the first I seldom used more than three or four grains to the ounce of soft lard, sometimes rendered softer by the addition of a little glycerine. Of the others I used from five to fifteen grains to the ounce. A patient presented himself. I first examined the urethra with a catheter, in order to ascertain how far up the passage the disease extended. It proved to be an incipient case, and I proceeded as follows:

Forcing into the two openings near the end of a female catheter as much of one of the ointments above described as I could, I passed the instrument

well up the urethra, and, by means of a syringe-bulb attached to it, forced the ointment out into the passage, after which I slowly withdrew the catheter. The application was made after micturition, so that the remedy might be kept as long as possible in contact with the parts.

I directed the patient to take, during the day, flaxseed tea containing a little bicarbonate of potash, and an occasional saline cathartic, if required. In a comparatively short time I discharged my patient cured. I think about six or seven applications were made. In several other cases the plan worked well, but the trouble attending the application led me to try the method recommended by Mr. Henry Thompson (*London Lancet*, May 12, 1866). I endeavored to make suppositories, or soluble bougies, by combining nitrate of silver, tannin, etc., with cacao butter. In this I failed, as in every case the silver was precipitated in the form of an oxide before the cacao butter would harden. Being still sanguine, and determined to succeed if possible in testing this idea, I called on Mr. F. S. Gaither, a skilful pharmaceutist of this city, whom I found ready and willing to assist me. After several trials we succeeded in producing the first urethral suppositories ever used in this city, and I believe the first ever used in this country. Our failures in making the bougies at first came from melting the cacao butter. We found it far better to rub the nitrate well in a drop or two of glycerine, and then incorporate it with the shavings of cacao, upon a smooth white-pine surface, by means of a spatula.

The first case in which I used the urethral suppositories was an exceedingly obstinate one.

J. S. B., aged about 40 years, plethoric habit, bilious temperament, weight about one hundred and seventy-five pounds. Had led a reckless life; was much addicted to stimulants; had often suffered from gonorrhœa, which he said "stuck like a brother when it once commenced." It was complicated this time with chancre of simple type. When I suggested the suppositories, he at once said, "No, doctor; treat me the old way. I always have to take large doses of copaiba and cubebs, when I am elected."

The only effect produced by the remedies generally used in such cases was, at times, a slight diminution in the amount of discharge. At the end of six weeks he concluded to try the suppositories. From this time the disease began to yield to the treatment, and in two weeks I discharged him cured. I should, perhaps, add here that the only medicine taken by the mouth, after the resort to suppositories, was tincture of iron in tonic doses.

In many other cases of a milder type, the results of this mode of treatment proved no less satisfactory to my patient than to myself, and for years I have not been obliged to resort to nauseating drugs in treating this troublesome disease. I sometimes give the oil of erigeron or tincture of iron, and always direct my patient to take flaxseed tea with bicarbonate of potash. I have generally found that if taken in hand early the disease will yield to this treatment in from one week to ten days.

In a paper read before the medical society of this district in 1868, I predicted that urethral suppositories would be for sale at our drug-stores, like any other ordinary remedy; and that prediction has been verified.

Encouraged by the success that had attended my use of suppositories in gonorrhœa, I determined to try them in that troublesome complication, stricture. My *modus operandi* was as follows:

Examining the urethra with a steel sound of medium size, and finding a stricture, I endeavored to pass it. This operation was generally attended with a certain amount of syncope, and a slight flow of blood from the parts. In some cases, on account of great nervous excitability, I was compelled to postpone the operation for a few days. As soon, however, as I had succeeded in passing an instrument, I applied to the seat of the stricture the ointment, as described above, to be followed by the introduction of a suppository at night. Every third or fourth day a larger sound was passed, and the ointment and suppository used. The only internal remedy I ordered was flaxseed tea with potash; which, by neutralizing the acidity of the urine, renders it less irritating to the sensitive membrane in the act of micturition.

In a case of more than two years' duration, by this method a cure was effected in three weeks, the sound having been passed but six times. The patient, when he came to me, considered his case incurable. In 1868 or 1869 he married, and up to the time that he removed to the South (two years after) he experienced no further trouble.

I will refer to but one other case. A young man contracted gonorrhœa in 1865. He admitted that he had suffered from subsequent attacks during 1866 and 1867. He came to me in 1868. In his case I found stricture complicated with spermatorrhœa. He was thin, anæmic, and very much depressed in spirits. The stricture was treated as in the former case. Diluted phosphoric acid, with strychnia, was ordered for the complication. The patient was discharged cured in thirty-five days from commencement of treatment.

I have treated all of my stricture cases in this way since 1868. They have not been numerous (not exceeding in number fifteen or twenty), and I recall but one case in which I was unsuccessful. This was an old and a hard case, the symptoms being constantly aggravated by the intemperance and irregular habits of the patient.

My opinion of the utility of urethral suppositories is derived from actual experience in their use; and one instance that just comes to my mind is well worth a place in this paper. A lady consulted me relative to a urethral trouble, in 1869. She had used, without benefit, several remedies procured for her by a friend. Not wishing to subject her to an examination, I ordered for her six suppositories, and directed her to pass one into the urethra every night, keeping it in place by means of a compress and napkin. She was also directed to take the flaxseed tea. In a week she was completely cured. About three years after this, I received a note from the same lady, requesting me to send her by the bearer a recipe for the same kind of suppositories she had

used before, in which she said, "You need not take the trouble to call and see me, doctor, for I know the same treatment is all I require." When, some days after, I called to learn the result of the treatment, she informed me "it was all right."

I have used, in the form of urethral suppositories, the following remedial agents: tannin, persulphate of iron, nitrate of silver, and morphia. I consider those of nitrate of silver and morphia the most efficient. I have them made about the diameter of a No. X. or XII. catheter, and about two inches in length. One of these is passed well up the urethra, after voiding the urine, by the patient when he retires at night, and the organ is enveloped in old muslin, to prevent the linen from being soiled. I have no doubt but that the nitrate is, in a measure, decomposed during the process of blending it with the cacao butter; it may become pretty well oxidized. Be this as it may, results of treatment speak for themselves, and it is with these that we have to do in this paper.

The grounds upon which I advocate the use of suppositories in these diseases may be stated briefly as follows: By their use in gonorrhœa the remedy is kept longer in contact with the unduly-active mucous membrane than by any other method; while in stricture their lubricating qualities exercise a soothing effect upon the irritated surface, and prevent too rapid healing of the parts.

Will not some one who has the opportunity to treat these diseases frequently, give urethral suppositories a trial, and favor us with the results of his experiments in this direction?

WASHINGTON, D.C., April 3, 1873.

TRISMUS NASCENTIUM — A CASE SUCCESSFULLY TREATED WITH CHLORAL.

BY G. TROUP MAXWELL, M.D.,
New Castle, Delaware.

IN the whole catalogue of ills which flesh is heir to, there are few, if any, diseases which present so appalling a mortality record as trismus nascentium. The testimony of many extensive practitioners, who have seen a great deal of it, is that they have never known a case to recover. Its hitherto unchecked ravages in certain sections of the world invest it with a deep and solemn interest, and anything that will afford a reasonable hope of getting it under control would be hailed with delight. My own experience with the disease in the States of Georgia and Florida, in a large practice, running over more than twenty years, with the single exception which I am about to report, does not differ from that of the large majority of those who have written upon the subject. It was my ill fortune to encounter, especially in the earlier years of my professional life, quite a number of cases, with the same unvarying result; the sufferings of the little ones always ended in death. There was, therefore, no accident of the lying-in chamber which was more profoundly dreaded, and not one against the happening of which more precaution and care were exercised. It is true that most of the cases occurred among the negroes and the poorer classes of whites; but it is equally true that cases did happen in the families of the wealthy, cultivated, and refined. Thorough ventilation, absolute cleanliness, good nursing, and everything that thought could suggest and money procure, were sometimes unavailing to prevent the appearance of this terrible malady.

Having read with much care and interest the articles upon this disease from the pen of Dr. J. Marion Sims, which appeared in *The American Journal of the Medical Sciences* in 1846 and 1848, and having been deeply impressed by the then novel views of their author, upon entering the profession the latter year, I then, as indeed I have ever done since, made careful examination of the heads of the children, and diligently searched for the displacement of the cranial bones, to which, and the consequent pressure upon the medulla oblongata, that writer attributed the whole trouble. In some instances there was displacement, but in others there was none discoverable; and the application of the procedure recommended by Dr. Sims, even when it restored the bones to their proper places and relations, failed to arrest the disease: so that after repeated trials of the plan suggested by him, without reaching the anticipated gratifying results, and after finding cases of trismus in which there was not any discoverable displacement of the cranial bones, and not unfrequently displacement without trismus, I lost all hope of affording relief by the measures proposed.

My expectation of favorable results was aroused and temporarily sustained by the publication in the Charleston (S.C.) *Medical Journal and Review* of two cases successfully treated by Drs. Gaillard and De Saussure, of that city, with Cannabis Indica; but a faithful trial of the remedy, in the doses and according to the formula employed by these gentlemen, gave no encouragement. Indeed, I had exhausted the resources of our art, so far as I was acquainted with them, in the treatment of this malady, but without avail; and I resorted to every expedient known to prevent it. In this latter idea I have believed that I was more successful. For several years past I have invariably dressed the funis of every infant I delivered with balsam of copaiba. Whether the relation of cause and effect subsists between balsam of copaiba, so used, and the result of absolute exemption from trismus, in my practice, I am not prepared to assert; but the fact obtains that I have not had a single case of that disease to occur when I have assisted at the accouchement since I have been in the habit—now some twelve or fifteen years—of using this article as a dressing for the funis. Nor would I seem to claim the practice as originating with myself; although I cannot now remember to whom I am indebted for the suggestion. I have an indistinct recollection that the idea was obtained from one of the Southern journals, and that it was the practice of a resident of one of the West India islands. The cases of trismus which I have seen in the last twelve or fifteen years have all occurred in infants which were delivered by other physicians, or by nurses.

In October, 1870, whilst residing in Jacksonville, Fla., I was called to see a female infant seven days old, who was laboring under a well-marked attack of trismus. I had been engaged to attend the mother in her accouchement, but, for some reason, she was intrusted to the care of a nurse only. On inquiry, I learned that the labor had been natural in every respect, and until that morning mother and infant were seemingly doing well. The first suspicious indications which they had perceived were inability of the infant to seize the nipple as firmly and to draw the milk as well as she had done, and almost simultaneously a change in the tones of the child's voice. I would remark that this latter sign—a peculiar hoarseness and huskiness of the voice of the infant—is, according to my experience, among the earliest and surest indications of trismus, and is a valuable diagnostic symptom in the early stage of the disease, before its characteristics are fully developed. Satisfied, after a careful examination, of the nature of the attack the infant was laboring under, I gave, of course, a most unfavorable prognosis.

Chloral had not at that time been long in use. I had introduced it into Jacksonville the winter previous, and, besides the favorable accounts of its action, with which the journals in Europe and in this country teemed, I had been gratified by my own experience with it in cases of spasmodic affections. With little or no hope of deriving benefit from its use in this case, I determined, nevertheless, to employ it. Of the following,—

℞ Chloral. hydrat., gr. vj,
Syrup. simp.,
Aquæ, āā ʒj,

I directed one-fourth to be administered every two hours. The effect of the first two doses was to produce sound and seemingly natural sleep, during which the spasms were suspended. On awaking, the spasms recurred; but it was thought they were less violent. In the evening I directed the chloral to be given often enough, and only when required, to keep her asleep all night. The next morning the amelioration of her symptoms was quite perceptible; she nursed with greater ease; and when, after prolonged intervals, the spasms returned, they were manifestly less rigid. The effect of the chloral was maintained throughout that day and the next night, with steady progress of the case towards recovery, the intervals between the doses being increased in length as the disease diminished in severity; and after the third day all treatment was discontinued without a recurrence of the trismus.

From that time the infant grew rapidly; but during her fourth month a distinct development of hydrocephalus was observed. Was there any connection between the trismus and the effusion of water into the cavities of the brain? This inquiry suggested itself, but I am unable to respond satisfactorily. Not long after this I moved out of Florida, and lost sight of the case.

Since this case occurred I have seen reports of several cases of trismus nascentium successfully treated with chloral. They confirmed the hope that the result in the case just described was not an accident merely,—a simple coincidence, or *post hoc*,—but was, in fact, a *cure*, the result following the administration of chloral as legitimate and proper effect,—*propter hoc*. For that reason, and in that belief, I give it to the profession. Possibly this valuable addition to the physician's *armamentarium*—chloral—will invest this much-dreaded disease with less sombre colorings; at least it should receive a faithful trial.

Treatment of Basedow's Disease (*The Practitioner*, March, 1873).—The three essential features of Basedow's disease are palpitation and frequent action of the heart, swelling of the thyroid gland, and exophthalmos. Its relations to chlorosis are obvious, as its occurrence in females chiefly, and its frequent association with irregularities after menstrual function, show. Nevertheless it occurs in men, and even in children. Drs. Eulenberg and Guttmann, in speaking of the mode of treatment to be adopted, remark that whilst formerly tonics were very generally employed with the object of improving the blood, as well as remedies that lowered the action of the heart, notwithstanding that experience demonstrated how little benefit was to be obtained by these means, in recent times the cure of the disease has been attempted by applying continuous electrical currents to the sympathetic in the neck. Dusch, it appears, was the first who adopted this means in a case which had long been otherwise treated without effect, and found that the application of from ten to twenty elements reduced the pulse from 130 to 70, and even to 64, in the minute, the exophthalmos at the same time undergoing considerable diminution. MM. Guttmann and Eulenberg tried the same means in 1867, and found that in a woman suffering from the disease, and having a pulse-frequency of 108 to 130, with unusual tension of the carotid, upon galvanization of the cervical sympathetic with a very weak ascending current of only six or eight elements, a gradual fall of the pulse-frequency took place from 124 to 84, and even to 70, with coincident diminished tension in the carotid and radial arteries. This plan of treatment, however, was not continued long enough to cause much diminution in the size of the tumor of the thyroid or of the exophthalmos. Since then they have applied the current in four other cases, and in all with the effect of ameliorating the cardiac symptoms, but in none long enough to cause material improvement of the other symptoms. Chvostek has made numerous experiments on galvanization of the sympathetic in these cases, and in no less than thirteen of them has nearly effected a complete cure. In his hands the influence on the gland was well marked, whilst it was less distinct on the activity of the heart. Moritz Meyer also reports four cases where the thyroidal tumor was by the same means almost entirely abolished.

The Non-Identity of Varicella and Smallpox.—In an article published on the above subject in the *Allg. Wiener Med. Zeit.* (No. 7, 1873), Dr. Fleischmann states that varicella is a distinct disease from smallpox, and adduces various clinical and experimental proofs in support of this view. Among the clinical arguments are the following: Vaccination exerts no influence on the development of varicella; varicella attacks equally vaccinated and non-vaccinated subjects; recent varicella does not preserve from smallpox; varicella never gives smallpox, but true varicella through contagion. The experimental proofs may be summed up thus: Inoculation of varicella produces neither variola nor varioloid; inoculation of varicella generally presents a negative result in vaccinated and non-vaccinated subjects; in some exceptional cases true varicella has been produced; the local results in secondary inoculation of variola are negative; the pustules of varicella cannot be considered as conveying contagion in the same manner as the pustules of variola.

Curious Case of Criminal Abortion.—Dr. T. G. Thomas, in the *American Journal of the Medical Sciences* for April, 1873, records a case in which the wife of a physician used an umbrella-wire 17½ inches long to produce abortion, *wounding the right lung*, and inducing death by pneumonia on the sixteenth day.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, MAY 3, 1873.

EDITORIAL.

A LIFE-INSURANCE CASE.

THE law reports of this city recently contained an item of interest to life-insurance companies and their medical examiners. John H. Allen, the executor of a deceased person,—Edward Carroll,—sued the World Mutual Life-Insurance Company of Brooklyn for the amount of a policy on the life of the said Carroll, payment of which was refused on the ground that at the time of its issue the medical examiner had been deceived as to the physical condition of the applicant. Two other companies had refused to insure him, as in the opinion of their physicians he was suffering from incipient consumption.

The judge (McKennan) charged the jury that the point for them to decide was whether the contract was made in good faith on both sides: if Edward Carroll had deceived the company intentionally, the claim was vitiated, but if not, the verdict should be for its payment. The case went against the company; but the verdict was set aside, and a new trial ordered.

An instance like this strongly illustrates the responsibility of the medical examiners of life-insurance companies. We well know that some examiners, and some companies, are far more lax than others in their scrutiny of applicants. But the proper rule of taking none but sound lives, so that the risks assumed shall be those of the average only, should be rigidly adhered to, in justice to all parties concerned; and whenever this rule is slackened, the integrity and security of the company and its members are by so much impaired. It is true that for a few years the easy admission of applicants makes a larger income, and perhaps more flattering dividends, and that the lapsing of some policies may lessen the actual loss; the two together may for a time even cover it up; but it is also true that just these rotten policies are the very ones on which, for the short time they exist before becoming claims, the premiums are most regularly paid.

We believe, from actual experience in the matter for many years, that attempts at cheating life-insurance companies are far more frequent than would be generally supposed. Family physicians are too ready to give certificates of good health, or at least of assurability, to patients whose favor they are loath to lose. One gentleman, very prominent in the profession, was known by us to advise a lady of very delicate constitution "to apply for life-insurance just now, while she was, for her, so well."

Hence it behooves the companies to exercise great care in the selection of their medical examiners, and to look well into all cases of loss, so that if they are due to careless or incompetent scrutiny of the applicants, it may be known. And the examiners should never forget that they are the guardians of the interests of their employers, charged with the duty of rejecting all but suitable applicants. The whole business has grown to be so enormous, involving so many and such varied interests, and such a vast aggregate of capital, that it might well be far more frequently and freely discussed.

THE ASSOCIATION MEETING.

DURING the coming week, the usual yearly congress of doctors will take place at St. Louis. There is no reason to suppose that the session will be of either more or less consequence to the profession, or to the world at large, than those of former years. Our own city, so far as we know, will be but meagrely represented, the private business of most of our physicians being in every way more attractive and profitable than either the deliberations of the Association or even the generous hospitality of our Western brethren.

We have so fully and so repeatedly spoken of the defects of the system under which this annual congress is held, and of the palpable failure of its practical workings,—and we have so little hope of such a change as should make it a truly representative affair, having influence with the mass of the profession,—that we need not pretend to regard it, as

now constituted, with either profound respect or lively interest. Nor need we at present renew our specifications against it. We can only say, with St. Paul, "my brethren, these things ought not so to be."

The propositions contained in the letter of our respected friend, Dr. Gross, published in our issue of April 5, do not seem to us to meet the difficulty. It may possibly be that some action will be taken, either by the Association or by a few of its leading members, towards putting things on a better basis; if not, we shall try again to excite an interest in the subject during the interval between this and the next meeting.

We have made arrangements for reports from a special correspondent of whatever may transpire at St. Louis.

IN our issue of March 29 there was an account of a case in which ligation of the subclavian artery was performed at the Jefferson Medical College, by Dr. Maury. Our attention has been called to the fact that the reporter made the serious error, on page 406, of stating that the vessel was secured by means of a *silk* ligature. The material used was *fine silver wire.*

The importance of this correction will be at once evident, and we trust it will be known and noted by all who are interested in the subject. The statistics of the operation in question are so limited in extent that every case placed upon record should be accurate in the minutest detail.

CORRESPONDENCE.

LONDON LETTER.

[*From Our Own Correspondent.*]

The General Medical Council of Education and Registration—The Curriculum of Medical Study—The System of National Conjoined Examinations—Visitation of Examinations—The Contagious Diseases Acts—Medical Officers of Health—Registration of Midwives—Professor Tyndall.

LONDON, April 9, 1873.

DURING the last week the General Medical Council of Education and Registration have been holding their annual session in London. This is always rather an interesting medical event. The Council includes official delegates from every university and medical corporation chartered by the state to confer medical licenses and degrees throughout Great Britain. Their assembly is always the signal of profuse hospitalities; and they discuss matters of considerable importance. Thanks to their labors, no medical student can now be registered until he has passed a preliminary examination in Latin, French, English composition, arithmetic, algebra, and Euclid; nor can any such student subsequently be admitted to examination for a degree until he has passed through a prescribed curriculum of education lasting for four years,—three of which must be spent in a medical school attached to a hospital with not less than one hundred and fifty beds, and a museum and other appliances of instruction on a corresponding scale, which has been "recognized" as suitable by the examining bodies. The fourth year must be spent in acquiring professional knowledge either at one of these hospitals or at some other hospital, school, or place affording adequate means of instruction. Notwithstanding these restrictions, however, it is feared that, under the influence of competition for fees, some of the examining bodies (in Scotland and Ireland especially) do not impose a sufficiently severe test upon the candidates for their diplomas. The efforts of the Council lately, therefore, have been devoted chiefly to the attempt to procure united action by inducing all the examining bodies in each of the three kingdoms to unite in forming conjoint examining boards in each kingdom, for the purpose of establishing a uniform minimum standard of examination. This effort has not been altogether successful, partly owing to legal difficulties attending such united action, and partly to reluctance of the Scottish bodies to fall in with an arrangement which would rob them of their individual right of action and lessen their profits. Their principle is "small profits and quick returns." Legislative action will be attempted, but, from what I know privately of the opinions of leading members of the government, it will not succeed in the shape proposed. Lord Ripon has a strong opinion that a more complete measure is necessary than any which the Medical Council are likely to propose; and his colleagues in the Cabinet will be guided by him in the matter. Meantime, exercising powers conferred by clause 19 of the Medical Act, the Council will resume strict visitation and inspection of the respective examinations by paid visitors; and this will exercise a most salutary effect. On the whole, the tests for diplomas have risen to a very high standard lately,—so high that there is some fear that a sufficient supply of practitioners ready to do the hard every-day work of the profession in poor districts will presently with difficulty be obtained. Already there has been a general rise in the fees of practitioners; and one of the senior surgeons of St. Bartholomew's told me, a few days since, that he finds great difficulty in getting young men to accept colonial and county appointments such as a few years since would have been eagerly sought after by a host of applicants.

Among the least inviting branches of every-day practice is "cheap midwifery," and this is falling gradually more and more into the hands of midwives. It is calculated that there are ten thousand midwives practising in Great Britain; and that from thirty to sixty per cent. of the women in many rural places and manufacturing towns are delivered by midwives. There is, however, but a very scanty machinery for educating them, and no authorized examinations for them, nor any register of

qualified persons. The result of the prevalent ignorance of this class of women is a great excess of mortality among lying-in women, and an unrecorded but pitiable mass of additional suffering inflicted on our poorer sisters in their hour of greatest need. The necessity is accordingly felt by many of the members of our profession for taking means to provide opportunities on a large scale for training midwives, and establishing an examining board and a public register of trained midwives. A deputation of the Parliamentary Committee of the British Medical Association has waited upon the president of the Local Government Board on this subject. Mr. Ernest Hart, as president of the committee, made a lengthened statement to that minister on the subject. Mr. Stansfeld returned a warmly favorable answer: he had frequent occasion, in connection with the administration of poor-law medical relief, to lament the deficiencies which the deputation pointed out; and he expressed a desire to do all in his power to promote state assistance to the scheme proposed. He undertook to bring the matter before his colleagues in the Cabinet. Dr. Acland, F.R.S., is moving in the same direction in the Medical Council, and Dr. Aveling in the Obstetrical Society; so that there is a fair prospect of something being done shortly to secure state examinations for midwives in this country.

The agitation against the Contagious Diseases Acts continues to be carried on fiercely in the provinces by the ladies chiefly, aided, however, by a certain section of churchmen, and by a number of gentlemen who describe themselves as belonging to the school of Mr. Mill. The whole medical profession, with the exception of a very few, are strongly in favor of the acts, on the ground of the physical benefits, and because it has been shown that by bringing under supervision the class of prostitutes who haunt garrison towns (to which alone these acts apply) they have tended to improve the morality of these towns, have led to a great reduction in the number of public women, to the reclamation of a considerable number of them, and to the introduction of decency and outward propriety where the opposite conditions previously prevailed. All this has been generally conceded: nevertheless, "the antecedent moral objections" to measures which virtually aim at providing healthy prostitutes for soldiers and sailors, and so offer immunity to immorality, are so strong in the minds of many excellent and thoughtful persons that the future stability of the acts may be regarded as doubtful. No measure for repealing them will be passed by this Parliament; but it will be a hustings question at the ensuing general election; and it may possibly pass in the next Parliament.

Under the recently passed Public Health Act, medical officers of health with highly important sanitary functions are being appointed in every district of England. Some are very highly-paid officers,—receiving from £600 to £800 sterling a year; others, acting in smaller localities, receive much smaller salaries; but altogether they are very handsome appointments, and, as many hundreds have been made, and some hundreds are still to be made, they will give a handsome addition to the income of the profession. This is only just; for a large amount of work preventive of disease has hitherto been done by the profession without payment; and by preventing disease and arresting epidemics they will save large losses to the country, and diminish professional receipts from attendance on sickness.

The Societies have been very active during the last few weeks. The Pathological Society of London, especially, has been the scene of a protracted and very able debate on the anatomical relations of tubercle. It is, however, still unfinished. I will give some account of it in my next letter, by which date it will probably have been concluded.

Professor Tyndall has been warmly received on his return to London. He gave, last Friday, a lecture on Niagara, full of characteristic keenness of observation, skilful generalization, and happy turns of thought. It was warmly applauded by a crowded audience.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

Semi-Monthly Meeting, April 9, 1873.

Reported by James S. Bailey, M.D.

Dr. Albert Van Derveer, President, in the chair.

LIGATION OF THE SUBCLAVIAN ARTERY FOR AXILLARY ANEURISM.

DR. JAMES H. ARMSBY addressed the Society on this subject, as follows:

My first operation was at Glens Falls, November, 1863, for axillary aneurism. The patient was John Ferguson, merchant, æt. 28. He had lost his right arm by the accidental discharge of a cannon in July previous. The stump was healed, and was apparently sound, until the following September, when a pulsating and painful tumor was formed in the axilla. This increased rapidly in size, until the day before I was called, when the sac was ruptured by an effort to put on his coat. He lost in a few moments two or three quarts of blood. He fainted, and was almost pulseless several hours, during which time the opening was closed by a compress, fastened by adhesive straps crossed over the shoulders.

When I arrived I found him in bed; pulse 130; skin cool and pale. The aneurismal tumor had filled, and was pulsating strongly under the dressings. I decided to operate immediately.

The first incision extended along the clavicle from the mastoid to the trapezius muscle, and was about three and a half inches in length; the second, vertical, intersecting the first near the middle. In dissecting up the flap, it became necessary to ligate three small arteries and the external jugular vein. The vein was secured by two ligatures, and divided between them. The clavicular portion of the mastoid was divided, and the deep cervical fascia.

The clavicle was carried upward to such an extent by the great size of the tumor as to render it extremely difficult to reach the artery. While detaching the fascia and large veins which cover the artery at the border of the scalenus muscle, I was startled by a slight gurgling sound, and the presence of air-bubbles at the deep-

est part of the wound, and immediately covered the spot with my finger. There was a tremor and slight convulsive movement, during which the pulse and heart were greatly disturbed, indicating the introduction of a small quantity of air into the circulation. After a moment of extreme anxiety, the operation was resumed, putting the ligature around the artery just under the outer border of the scalenus muscle. The deep cervical and supra-scapular arteries were both exposed, and held to one side. They came off on the cardiac side of the scalenus, and, as the loss of blood had been so great, I did not deem it safe or necessary to ligate them.

The greatest difficulty of the operation consisted in separating the great veins which completely encircled and obscured the artery. I passed the ligature from below upwards, securing a good view of the point of ligation, and applying the test of pressure before tying the knot. As soon as the ligature was drawn tight, the pulsation in the tumor ceased. An anodyne was administered, and the patient had a good night's rest. Under the use of a generous diet and tonic course of treatment, he improved rapidly, until the tenth day, when the skin over the tumor became discolored and painful. I was again called, and laid open the sac freely, removing nearly a quart of coagula and sanguino-purulent fluid. After this his recovery was rapid and complete. The ligature came away on the twenty-ninth day.

Case II.—In October following, I operated a second time for the relief of secondary hemorrhage which threatened immediate fatal results. Major Jacob C. Clock, U.S.A., was wounded by a minié ball at the battle of Occoquan, Va. The ball entered in front of the shoulder-joint, and passed through the axilla, fracturing in its course the scapula quite extensively, coming out near the spine. The axillary artery, or some of its larger branches,—probably the sub-scapular or internal circumflex,—were wounded. He suffered much from loss of blood, shock to the system, and exposure on the field previous to his removal to the military hospital at Winchester, Va. While in the hospital he lost much blood from repeated hemorrhages, and had chills and fever continuously.

He reached his home twelve days after the wound was received. During the next ten days he seemed to improve in strength and health. On the twenty-third day after the wound he had a sudden and profuse hemorrhage, losing a large quantity of blood. I was called by telegraph. When I arrived, he was ex-sanguine and pale; pulse 130; and the wound swollen and unhealthy. As the only surgical means available, I decided to ligate the subclavian artery.

The operation was done by candle-light, in the presence of several medical gentlemen. The incisions were made, as in the other operation, over the clavicle and along the posterior border of the mastoid. The external jugular vein and three superficial arteries were ligated. During the first incision, in dividing the deep cervical fascia, two larger branches had to be tied. A large nerve, a branch of the axillary plexus, was situated over and rested on the artery, and was uplifted by every pulsation. On casting a ligature under it, and holding it to one side, the artery was found directly under, and ligated between, the scaleni muscles. The anterior scalenus had to be divided, near the point where it is crossed by the phrenic nerve, which was carefully preserved.

The pulsation and hemorrhage ceased immediately, and the patient lost but little blood during the operation. Everything promised a favorable result during the first twenty-four hours. He rested well, took sufficient nourishment, and there was a manifest improvement in the pulse and general condition. Forty-eight hours later he had a severe chill, and on my second visit I found the gunshot wound in a gangrenous state, and the patient rapidly sinking.

He died on the twenty-sixth day after the wound was received. The operation was successful as regards the suppression of the hemorrhage, and prevented an immediate fatal result.

The condition of the patient, and the exposure on the field and while travelling, had a controlling influence in the final termination of the case.

Case III.—Wm. Nash, a guide in the North woods, was rowing a boat on Cedar River, June, 1872. His boat fell into the current, and was in danger of going over the falls. While using extraordinary effort to avoid the danger, he felt a sharp pain in the axilla, and a sensation as if something had been torn or lacerated. A swelling soon followed, attended with throbbing pain and inability to move the limb. The tumor increased quite rapidly, carrying the shoulder upward, protruding forwards under the pectoral muscle. On the 8th of March he was taken to Warrensburg, and placed under the care of Dr. McNutt, who immediately telegraphed to me, and started at once for Albany with the patient.

When he arrived he was greatly reduced by the suffering and fatigue of the journey. For several weeks the pain had been severe, preventing sleep, and exhausting his strength. The pulsation was strongly expansive over the greater part of the tumor.

On the 10th of March the operation was performed in the amphitheatre of the hospital, in the presence of the medical and surgical staff, and other members of the profession.

An incision was made along the course of the clavicle three and a half inches in length. The superficial and deep cervical fascia and clavicular portion of the mastoid muscle were divided; but one superficial artery required the ligature. The external jugular was compressed, and not divided. The artery was reached under the anterior scalenus muscle, which was detached from the rib three-fourths of an inch to uncover the artery. The deep transverse cervical artery was given off from the subclavian close to the border of the scalenus, which rendered the division of that muscle necessary to reach the artery. The subclavian was ligated first. The ligature was passed from within outwards, pressure was applied with the finger, and the tumor ceased to pulsate; the knot was then secured. The transverse cervical was then tied half an inch from its origin; only three ligatures therefore were applied, and the patient lost hardly a spoonful of blood.

The wound healed kindly. The ligature came away on the fourteenth day. The tumor was gradually diminished, and the sensation and power of motion in the limb have been gradually restored. The cure has progressed until this time. He is walking about in the hospital, and a complete recovery is anticipated.

At the annual meeting of the American Medical Association, held in New York, May, 1866, a committee was appointed to report on the subject of ligation of the subclavian artery. I was a member of that committee. The report was made under the direction of Dr. Willard Parker, and the statistics collected by Dr. Wynkoop, a student of Dr. Parker.

At that time, 196 cases of ligation of the subclavian had been reported; 107 died, and 88 recovered; the result in one case was not given. The mean time for separation of the ligature was 21 days; the shortest time, 8 days; the longest, 113 days.

The subclavian has been tied in its first division 13 times, without one recovery. In its second division, 9 times, with 4 recoveries. In its third division it has been tied 174 times, with 83 recoveries. Out of 67 cases 29 have died of hemorrhage.

Dr. Rork [Koch ?] reports 185 cases of ligation of the

subclavian external to the scaleni muscles, of which 100 died, 82 recovered. The result in 3 cases is not stated. During our late war the subclavian was tied 17 times for hemorrhage, with but two recoveries.

Dr. HENRY MARCH remarked that it was remarkable that his father (the late Dr. Alden March) never had had occasion to ligate the subclavian artery in his long experience as a surgeon; but by reference to his case-book he found he had ligated arteries forty-three times, among which the profunda, external iliac, and common carotid were included.

SECONDARY SYPHILIS.

Dr. LEVI MOORE then addressed the Society upon secondary syphilis. He remarked that some years since he had read a paper on the subject of syphilis before the Society, when his remarks were confined more especially to the primary form of the disease, its character, distinctive features, and effects upon the human body.

He had been deeply impressed with the importance of this subject, both as it relates to the victim, whose vices self-impose this disease, and to that larger class to whom this disease is transmitted hereditarily or otherwise. It is a lamentable fact that by far the greater number of those who suffer either directly or indirectly from syphilis are in no way the authors of their sufferings. We are all so frequently brought in contact with this disease in its primary form, and at that period, too, when it is impossible to prevent the constitutional taint, that we need not wonder if it bears bitter fruit, involving in a common calamity the innocent as well as the guilty.

Dr. MOORE related the following case:

Several years ago Mr. N. placed himself under his care, who was at the time, and had been for a considerable period, suffering from a chancre on the glans penis. The case was complicated by phymosis. Cleanliness, the use of washes, the internal administration of mercurials in the form of pil. hydrarg., and afterwards protiod. mercury, with iodide of potass., finally effected an apparent cure. The remedies were continued for a long time, with the hope that but little if any of the virus of the disease remained in the system of the patient at its discontinuance.

Afterwards he married. His wife conceived, and miscarried at the expiration of three months. About the same time a troublesome ulcer, syphilitic in appearance and of large size, appeared upon his leg, which only disappeared after long and persistent use of the remedies mentioned. A second pregnancy occurred, and at the end of the seventh month his wife was delivered of a living child covered with syphilitic eruption and presenting most unmistakable evidences of constitutional taint. The child lived about one month, and then died. The mother, to all appearances, retains good health; and yet we cannot doubt but that sooner or later she will suffer from the effects of syphilis, introduced through her circulation from that of her unborn child.

Another case.—A young man, whom Dr. MOORE attended for secondary syphilis, and who had the characteristic ulcers about the mouth and fauces, was at the time attentive to a young lady of good family and character. Somewhat more than one year afterwards, Dr. M. was asked to prescribe for an eruption on the body of the lady, and was surprised to find it syphilitic; also to find a syphilitic sore-throat. He then learned that one year before she had suffered from a troublesome ulcer on her lip, which was long in healing.

Dr. MOORE continued, that he had introduced these cases only because they are pertinent to some further observations he had to offer on this subject. They are by no means exceptional, and probably many members present could recall similar cases.

Miscarriages frequently result from the effects of this disease, and, when the offspring is born alive, both mother and child are involved in one common misfortune.

The question was then asked if remedies could eradicate this disease from the system.

He said there were grave doubts, in the minds of careful observers, whether this disease, when once it has obtained a foothold in the human body, can ever be entirely removed. It is believed it may reappear or bear its legitimate fruits in syphilitic or scrofulous offspring.

The recognized difficulties in the way of curing those affected with this disease led to the trial of the principle of inoculation in a Swedish hospital. Patients affected with syphilis were repeatedly vaccinated with syphilitic virus, till a constitutional tolerance had been established and the virus ceased to produce any effect. Many cases were subjected to the treatment, and satisfactory results claimed. Although several years have elapsed since he read the statement, he had not learned that any other hospital had seen fit to continue the experiment.

He next directed the attention of the Society to a sanitarian view of this disease, and remarked that multitudes of our young men enter upon married life with their physical vigor tainted by this poison; wives and children alike suffer. Others still, unfaithful to their matrimonial relations, contract this loathsome disease and communicate it to their wives, and doubly entail it upon their children.

The importance of this subject has led to legislation on the matter of prostitution, and the city of St. Louis, and some others, have instituted a sanitary police to regulate prostitution, and in this way to protect the innocent from its evils.

The moral, as well as the sanitary, aspect of this proposition has been not a little discussed; and while it has been warmly commended on some hands, it has been bitterly denounced on others. It rests with the medical profession to shape and direct public opinion to the proper view of this question.

Dr. MOORE said that he had accomplished his object if, by remarking on this subject, he had awakened in the minds of the members of the Society a deeper interest in this important subject, and a more earnest desire to shield the innocent and unsuspecting from its destructive influences.

A general discussion arose from the reading of Dr. MOORE'S paper, in which nearly every member took an active part, each one giving his particular views upon the subject.

AMPUTATED CERVIX UTERI.

Dr. VAN DERVEER presented two specimens of amputation of the cervix uteri. One had been removed some time ago. The patient became pregnant in three months after the operation, but miscarried in consequence of over-exercise. To-day he had delivered her, at full term, of a healthy fœtus. The remarkable features were that no rigidity existed, and that the cervix appeared quite normal.

The second case was that of an unmarried woman, æt. 35, upon whom he had operated recently. There had been a difficulty in urinating for ten years past, the cervix having to be crowded up each time before the water was voided. There was found to be a longitudinal hypertrophy of the cervix, causing the organ to protrude when the patient was in the erect position.

Preparatory to the operation the patient was etherized, and the parts were exposed by a Sim's speculum, and the neck brought down by a silver wire passed around it. The amputation was then performed with curved scissors, 1½ inches anteriorly and 2 inches posteriorly. Four sutures were introduced to unite the edges of the mucous membranes.

She now menstruates normally, and already feels much improved. He preferred the scissors to the galvano-cautery, as the latter leaves a cicatrix, which can never be covered with epithelium, while by using the scissors the mucous membranes can be united by sutures and so be made continuous.

There is but little hemorrhage, as the silver wire acts as a tourniquet, and also aids in the operation by bringing the organ down.

REVIEWS AND BOOK NOTICES.

THE DISEASES OF THE STOMACH. Being the third edition of the "Diagnosis and Treatment of the Varieties of Dyspepsia." Revised and enlarged. By WILSON FOX, M.D., F.R.C.P., F.R.S., etc. 8vo, pp. 236. London and New York, Macmillan & Co., 1872.

The present edition of this work, besides being revised, differs from the two previous ones in containing a chapter on ulcer, and one on cancer of the stomach, as well as short articles on hypertrophy of the walls of the stomach, obstruction of the cardiac orifice, hemorrhage, dilatation, and softening of this organ. These additions render an already valuable work complete, and, as the author has spared no labor in its preparation, it is one of the most excellent treatises on the subject.

The best and latest authorities are freely quoted throughout the book, and we have the results of a considerable amount of original research and observation.

The first part is a general consideration of the symptomatology of the diseases of the stomach. Dr. Fox believes that in the inflammatory and irritative affections of this organ the appearance of the tongue undergoes changes indicative of the condition of the gastric mucous membrane, but that in the other disorders of the stomach the tongue is usually unaltered.

We are told that flatulence is generally the result of fermentative changes, and that gas is never, as has been supposed, secreted by the mucous membrane of the digestive tract. In the sudden flatulent distention of hysterical cases it is believed that most of the air is swallowed.

Acidity is thought to arise, in the great majority of cases, from fermentative action, but in some instances it is the result of a hyper-secretion from the mucous membrane.

Part second treats of the special diseases of the stomach, beginning with "atonic dyspepsia."

Under the head of gastritis the author considers acute and chronic gastric catarrh,—differing in this respect from those who consider gastritis a rare affection, due only to direct irritation from corrosive poisons, alcohol, etc., and occurring as a complication of other diseases. In addition to the acrid poisons, Dr. Fox gives as causes of acute gastritis, improper food, such as decomposing meat or vegetables, the drinking largely of cold water when the body is heated, and changes of temperature. He says there seems to be evidence that epidemic influences have something to do with the production of this disorder. Under the same head a very accurate description is given of sick headache, and, although the author regards the headache as usually a symptom of gastric catarrh, he seems disposed to agree with Dr. Anstie in looking upon the pain as a neuralgic affection. There is still, however, a great deal of discussion as to the true nature of *migraine*, as recent papers in *The Practitioner*, *Lancet*, and *British Medical Journal* will show.

Chronic catarrh includes a large number of cases of chronic dyspepsia, and the writer believes it to embrace the disorders described as "irritative," and even "nervous" dyspepsia. In the description of this form of the disorder the reader will recognize cases that he daily meets with.

The writer alludes to the opinion of some authors, that indigestion is often the immediate cause of phthisis. His own belief is that, when dyspepsia has preceded pulmonary disease, the same unhealthy constitutional condition has produced both affections.

The articles on ulcer and cancer are full of interest and information, while the references to authorities are even more numerous in this than in other parts of the book, and add greatly to its worth.

The paper and typography are good, and there are two fine engravings illustrating the microscopic appearances of the glands of the stomach in catarrhal conditions.

GLEANINGS FROM OUR EXCHANGES.

REMOVAL OF A NEEDLE FROM THE HEART—RECOVERY OF THE PATIENT (*British Medical Journal*, March 1).—Mr. G. W. Callender related to the Royal Medical and Chirurgical Society, at a recent meeting, the history of a man who for nine days followed his ordinary occupation in pain and with discomfort, having a needle fixed in the tissues at the apex of the heart. On the ninth day, in consequence of his statement and in view of the pain which he was suffering, an incision was made over the fifth intercostal space, and the broken eye of the needle was found on a level with the intercostal muscle. This extremity was seized, and the foreign body was withdrawn. The patient recovered without an unfavorable symptom. With this history, the exact position of the needle in the wall of the chest was given, as also was that of its probable position in the heart; the movements of the foreign body, caused by those of the heart, were figured, and their measurements were added. Some remarks were made upon recovery and duration of life after somewhat similar injuries, and an appendix of cases was given in the form of a table.

A discussion having arisen as to the actual penetration of the heart-substance by the needle, Dr. C. J. B. Williams said that the needle must have been buried to some depth in the substance of the heart. In animals on which experiments had been tried with pins, to ascertain the causes of the sounds of the heart, the introduction of needles caused at first violent action; afterwards the action was quieter. The needles always moved, and produced a friction-sound. Most likely there was adhesion here. It might be possible to introduce a needle, and so give an electric shock directly to the heart in suspended animation. Mr. Croft did not think the needle had penetrated the heart-substance. There were various reasons why he thought its end must have been free in the pericardium. A boy was brought to St. Thomas's with a needle supposed to be broken off in the substance of the heart. He died of pericarditis. The point was found projecting into the pericardium. It had caused laceration of the heart's substance, and pericarditis. Mr. Hulke said there was no difficulty about Mr. Callender's theory. There was much greater difficulty in accepting Mr. Croft's notion. The needle was really free at its outer end; and, attached at its inner end to the substance of the heart, it swung with its motions. Mr. Fairlie Clarke said in Mr. Croft's theory inconvenience was more likely to arise than in Mr. Callender's. Much more severe injuries had been recovered from. Mr. Callender said that if he had not

been quite sure as to the nature of the case, it would not have been worth while to bring it before the Society. The movements were exactly such as would be produced by the motion of the heart. It was marvellous how the man could go about his work for nine days in this state. The pain complained of a month after was doubtless due to nervousness. In the case of a child who ran a needle into a joint, he did not find the magnetic needle of much practical use.

The Cerebral Mechanism of Speech and Thought.—Dr. W. H. Broadbent, in a paper in the "Medico-Chirurgical Transactions," vol. lv., presents the following conclusions:

1. Words, as remembered sounds, will be represented by cell-groups at the summit of the receptive side of the nervous system, which, for reasons given, is supposed to be situated in the marginal convolutions of the cerebral hemisphere.

2. From these cell-groups, when definitely formed, impressions will be transmitted to a cell-area in the superadded convolutions, to which also impressions conveying to the mind the various properties of objects indicated by the words will be transmitted; all these impressions are associated, and the word is employed as the symbol for the resulting idea of the object.

3. Almost simultaneously motor cells in the corpus striatum are grouped for the production of articulate words under the guidance of the remembered sound in response to efforts at imitation, which are at first more or less parrot-like. The cell-groups for spoken words once formed are, however, employed almost exclusively in intellectual expression.

4. The receptive cell-groups for remembered sounds will be found in the marginal convolutions of the two hemispheres, which are symmetrically associated by the corpus callosum, and the cell-groups for spoken sounds will be found in the two corpora striata; but the absence of commissural connections between the superadded convolutions of the two hemispheres permits of the predominant, if not exclusive, education of the left hemisphere for the verbal expression of the product of intellectual action, as has been revealed by pathology. This is an efferent process, and does not imply the exclusive use of the hemisphere in thought.

5. The outlet for intellectual expression in spoken words, which are motor acts, is necessarily in some part of the marginal convolutions in relation by fibres with the corpus striatum, and pathology has shown this point to be the left third frontal gyrus.

6. The left third frontal gyrus being the outlet for expression, the left corpus striatum necessarily takes the lead in the production of spoken words, but a way round exists probably from the left to the right third frontal gyrus by the corpus callosum, and thence to the right corpus striatum. Thus speech, though temporarily embarrassed by damage to the left corpus striatum, is recovered; whereas, if the cortex of the left third frontal convolution is damaged, or its fibres, both to the corpus striatum and the corpus callosum, cut through, speech, having no other outlet, is lost.

On a New Mode of Treatment of Functional Dyspepsia, Anæmia, and Chlorosis (*The Practitioner*, March, 1873).—M. Brown-Séquard, in his "Archives of Scientific and Practical Medicine," in a paper on this subject states that in 1851 he had to treat a bad case of dyspepsia, and succeeded in curing the patient by a plan of treatment which deserves attention, though it was long ago adopted by Dr. Watson in this country in cases of obstinate vomiting. M. Brown-Séquard has employed this plan with complete or partial success in a number of cases of dyspepsia, of chlorosis, of anæmia, and also as a means of ameliorating or curing nervous affections caused by gastric disturbances or poverty of blood. In a number of instances where failure occurred it was found that the patients had not carefully followed the rules, and that the failure was, at least in a great measure, due to this lack of care. In two cases only some increase of flatulency and acid eructations took place during three or four days, when the plan was given up. In a case of dropsy, attended with anæmia, dyspeptic pains were increased for a week, when the plan was abandoned. The treatment consists in giving but very little of solid or fluid food, or any kind of drink, at a time, and to give these things at regular intervals of from ten to twenty or thirty minutes. All sorts of food may be taken in that way; but during the short period when such a trial is made, it is obvious that the fancies of patients are to be laid aside, and that nourishing food, such as roasted or broiled meat, and especially beef and mutton, eggs, well-baked bread, milk, with butter and cheese, and a very moderate quantity of vegetables and fruit, ought to constitute the dietary of the patients under treatment. This plan should be pursued two or three weeks, after which the patient should gradually return to the ordinary system of eating three times a day. M. Brown-Séquard's experience with the patients on whom he has tried the plan of feeding above mentioned, shows that the amount of solid food required by an adult is nearly always as follows: from twelve to eighteen ounces of cooked meat, and from eighteen to twenty-four ounces of bread. As regards the quantity of fluids he has always allowed, it has been notably less than the amount indicated by Dr. Dalton (three pints), and by Dr. E. Smith (four and one-half to five pints).

A case of spontaneous version is related by Dr. Stanley Haynes, in the "Transactions of the Edinburgh Obstetrical Society." Mrs. M., aged 37, in her eighth pregnancy, had a left occipito-anterior position of the head; the os was dilated to two inches. The patient, whilst seated upon the night-stool, felt a sudden and great movement within, followed by a sensation of the descent of the fœtus. She hastened back to bed; the breech and right foot were now found presenting, the dorsum of the child being towards the left foramen ovale, and in three pains the birth was completed.

MISCELLANY.

Medicine at Leipsic.—A correspondent of the *Lancet* quotes as follows from M. Léon Gautier: "In the Universities lie Germany's strength and the secret of her success." In 1870 Leipsic alone sent out to the war 400 of her 1668 students, of whom 55 never returned. Before their departure the Professors addressed them in the Town Hall, one saying, "If the French ask you where you come from, say, 'From Leipsic.' They will remember the name." The Medical Faculty, formerly third in importance after Jurisprudence and Theology, is now rapidly coming to the front,—the present session numbering nearly four hundred medical students, besides one hundred and twenty-one studying pharmacy. The senior of the Faculty, as he is of the whole University, is Dr. Ernst Heinrich Weber, Professor of Anatomy, who has held his chair for fifty-two years. There are also Dr. Radius, Professor of Hygiene; Dr. Wunderlich, ex-Rector and Clinical Professor; Dr. Crede, Professor of Midwifery; and Dr.

Wagner, Professor of Pathology and Pathological Anatomy; while physiology is represented by Dr. Ludwig; surgery by Dr. Thiersch; ophthalmology by Dr. Coccius; anatomy by Dr. His; and topographical anatomy by Dr. Braune. Our readers have, doubtless, recognized many of these names as of European reputation,—to say nothing of Dr. Czermak, a man of large private fortune, who lectures on physiology, and has provided in his own residence a commodious lecture-room and laboratory, with teaching-apparatus of every kind; the whole (lectures and practical arrangements) being free and open to all. There are also fourteen extraordinary Professors and twelve privat-Docents in the Medical Faculty of Leipsic, which, moreover, enjoys clinical resources of the best kind. In the suburbs there is the new large Infirmary, built on the latest and most approved principles; and in connection with it is the Clinical Institute, of which Professor Wunderlich is Director and first teacher, and Professor Thiersch Director of Surgical Clinics. The Infirmary is a one-story building, spread out in pavilions over an extensive area. In addition to it are the Pathologico-Anatomical Institute, under Professor Wagner; the Physiological Institute, under Professor Ludwig; and the Pathologico-Chemical Laboratory, under the Clinical Director, Professor Hofmann. A large new Anatomical Institute, towards which the Saxon Chamber a year ago granted 167,000 thalers, is in course of construction; and in another part of the town there is a Hospital for Midwifery and Women's Diseases, under Professor Crede. Professors His and Braune are Directors of an Anatomical Institute in conjunction with the old University buildings; while Professor Radius superintends a Pharmaceutical Museum, Professor Wagner a Medical Polyclinical Institute, Professor Schmidt a Surgical Polyclinical Institute, and Professor Thomas a District Polyclinical Institute. In an opposite part of the town there is an Institution for Eye Diseases, under Professor Coccius. Leipsic, the medical student will observe, is well worth a visit; while residence there is much cheaper, and, in a sanitary point of view, safer, than at Vienna or Berlin.

At a very full meeting of the Medical Society of the city of Wheeling and county of Ohio, held on Monday evening, April 14, the following action was taken with reference to their deceased fellow, Dr. Robert H. Cummins:

The melancholy announcement having been made to this Society of the death of Dr. Robert H. Cummins, an honored member and a former President of the Society, therefore,

Resolved, That in the death of Dr. Cummins this Society, and the community in which we live, have suffered a loss which will make this sad event to be long remembered and regretted.

Resolved, That the assiduity, devotion, and unusual skill and ability with which the deceased discharged his professional duties, joined to the courteous bearing which distinguished his conduct towards his medical brethren, and his uniform kindness of manner in his intercourse with his patients, gave him a symmetry and completeness of professional character which commands our highest respect, and is received by us as an example eminently worthy of our imitation.

Resolved, That the personal and social character of the deceased possessed traits not less deserving of commemoration than were his professional virtues, and we bear our testimony to his integrity of principle, his uprightness of conduct, and to his kind and sympathizing nature, which at once gave him the entire confidence of those to whom he ministered, and endeared him to a very large circle of ardently attached friends, in whose hearts his memory will long be kept green and unfading.

Resolved, That the members of this Society will in a body attend the funeral of deceased to-morrow at two o'clock P.M., and will wear the usual badge of mourning for thirty days.

Resolved, That the President of the Society be requested to present a copy of these resolutions to the family of the deceased, with the assurance of our sincere sympathy with them in this sad bereavement.

Resolved, That the foregoing resolutions be spread upon the minutes of the Society; be furnished for publication to the daily papers of the city, and to the medical journals.

Resolved, That Drs. Todd, Bates, Frissell, Ford, Hupp, Baird, Allen, and Hildreth, be appointed to act as pall-bearers.

R. W. Hazlett, *President.*
S. L. Jepson, *Secretary.*

A correspondent of the *Lancet* relieves his mind as follows:

"Killing two Birds with one Stone.—The stone in this case—not the first case of the kind—is a sermon. The preacher is Dr. Lambart, of Liverpool, who lectures on Sunday afternoons on the Body and its Diseases. Dr. Lambart is not only minister of Holy Trinity Church, but M.D. Dublin, and M.R.C.S. Eng. The lecture, as reported in a Liverpool paper, contains lively allusions to the case of Napoleon III., with complimentary references, in passing, to 'a Gull,' to 'the intelligence of Thompson,' to 'the knife in the hands of Sir William Fergusson or Spencer Wells of London, or Dr. Graham of this town.' A collection at the end of each lecture is made, to defray expenses. It must be difficult to fix the attention on affairs of the soul when stone and other vulgar physical subjects are under discussion."

At a stated reunion of the Medical Library and Journal Association of New York, held April 18, 1873, Dr. John C. Peters, President, in the chair, the following preamble and resolutions were presented and adopted:

Whereas, This Association has learned of the death of Josiah C. Nott, M.D., a successful and honored physician both in the Northern and Southern sections of our country; therefore,

Resolved, That in the death of Dr. Nott we recognize the loss of one of our most devoted members; a gentleman eminent for his high integrity and his unblemished character, distinguished alike as an ethnologist, gynæcologist, and surgeon, and by his untiring zeal for the advancement of medical science.

Resolved, That, as an expression of our sympathy with his afflicted family, a copy of these resolutions be transmitted to them, and published in the medical journals; also entered on the minutes of this Association.

THE Paris correspondent of the *British Medical Journal* says that "the beautiful collection of books (ancient and modern) belonging to the late Dr. Daremberg has been purchased by the Minister of Public Instruction, and presented to the Library of the Faculty of Medicine of Paris." We believe that the authorities of the London University were desirous of obtaining a part at least of this library for their own shelves.

PRIZES.—The Prix Duval of the Society of Surgery of Paris has been awarded to M. Malherbe for his researches on "The Febrile Condition in Diseases of the Urinary Organs." The Society of Medicine and Surgery of Toulouse proposes as a prize subject for 1874 the following question: "On the purity of the chemical medicines most commonly employed: indicate the most certain and easy tests."

THE PULSE OF VARIOUS ANIMALS.—Vatel, in his "Veterinary Pathology," gives for our domestic animals the following pulse: Horse, from 32 to 38 pulsations per minute; ox or cow, 25 to 42; ass, 48 to 54; sheep, 70 to 79; dog, 90 to 100; cat, 110 to 120; rabbit, 120; guinea-pig, 140; duck, 135; common fowl, 140.

MORTALITY OF PHILADELPHIA.—The interments reported at the Health Office for the week ending April 26, 1873, were 333; 172 adults, and 161 minors. 13 were of bodies brought from the country; making the mortality of the city 320. Among the assigned causes of death were:

Consumption of the Lungs	48
Other Diseases of the Respiratory Organs	45
Diseases of the Circulatory Apparatus	18
Diseases of the Brain and Nervous System	54
Diseases of the Digestive Apparatus	21
Zymotic Diseases (8 from Scarlet Fever)	35
Typhoid Fever	6
Casualties	6
Cancer	5
Exposure	1
Suicide	1
Neglect	1
Debility (including "Inanition" and "Marasmus")	39
Still-born	20
Old Age	11

(The interments reported for the week ending April 27, 1872, were 387.)

THE meteorological record kept at the Pennsylvania Hospital was as follows:

	THERMOMETER. Max.	Min.	BAROMETER. (2 P.M.)
April 20	58.0°	43.5°	30.01 in.
" 21	55.0	41.0	29.94 in. (Rain.)
" 22	49.0	40.0	29.98 in.
" 23	53.0	38.0	30.04 in. (Rain.)
" 24	61.0	42.0	30.01 in.
" 25	58.0	43.0	29.87 in.
" 26	54.0	44.0	30.01 in.

NOTES AND QUERIES.

EAR COUGH.—I have a patient subject to ear cough; a peculiar spasmodic cough being produced by touching any part of the external auditory meatus. Recently I gave him a dose of twenty grains of quinine, which induced a cough exactly similar to the ear cough from external irritation. This cough continued until the influence of the quinine on the system subsided.

J. SOLIS COHEN.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM APRIL 22, 1873, TO APRIL 28, 1873, INCLUSIVE.

HEAD, J. F., SURGEON and MEDICAL DIRECTOR.—Granted thirty days' leave of absence. S. O. 77, Department of Dakota, April 17, 1873.

HEGER, A., SURGEON.—In addition to his present duties, to perform those of Medical Director of the Department. S. O. 77, c. s., Department of Dakota.

BENTLEY, EDWIN, ASSISTANT-SURGEON.—To accompany Battery "G," 4th Artillery, for service in the field against the Modoc Indians. S. O. 44, Department of California, April 13, 1873.

GIRARD, J. B., ASSISTANT-SURGEON.—Assigned to duty at Camp Apache, A. T. S. O. 21, Department of Arizona, March 31, 1873.

POPE, B. F., ASSISTANT-SURGEON.—Assigned to duty at Humboldt, Tenn. S. O. 76, Department of the South, April 19, 1873.

BOOKS AND PAMPHLETS RECEIVED.

Hand-Book for the Physiological Laboratory. By E. Klein, M.D., Assistant-Professor in the Pathological Laboratory of the Brown Institution, London, etc.; J. Burdon Sanderson, M.D., F.R.S., etc.; Michael Foster, M.A., M.D., F.R.S., etc., and T. Lauder Brunton, M.D., D.Sc., etc. Edited by J. Burdon Sanderson. In two volumes, 8vo. With One Hundred and Thirty-three Plates. Vol. I., text, pp. 585. Vol. II., plates. Philadelphia, Lindsay & Blakiston, 1873.

The Mechanism of the Ossicles of the Ear and Membrana Tympani. By H. Helmholtz, Professor of Physiology in the University of Berlin, Prussia. Translated by Albert H. Buck and Normand Smith, of New York. With Twelve Illustrations. 8vo, pp. 69. New York, William Wood & Co., 1873.

Clinical Lectures on Various Important Diseases: being a Collection of the Clinical Lectures delivered in the Medical Wards of Mercy Hospital, Chicago. By Nathan S. Davis, A.M., M.D., etc. Edited by Frank H. Davis, M.D. Small 8vo, pp. 262. Chicago, J. J. Spalding & Co., 1873.

Archives of Ophthalmology and Otology. Edited and published simultaneously in English and German. By Professor H. Knapp, M.D., of New York, and Professor S. Moos, M.D., of Heidelberg. Vol. III., No. 1, 8vo, pp. 260. Illustrated. New York, William Wood & Co., 1873.

A Hand-Book of Medical Electricity. By Herbert Tibbits, M.D., L.R.C.P. Lond., etc. With Sixty-four Illustrations. 8vo, pp. 164. Philadelphia, Lindsay & Blakiston, 1873.

Fourth Annual Report of the State Board of Health of Massachusetts. January, 1873. 8vo, pp. 473. Boston.

SATURDAY, MAY 10, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE ON ECZEMA RUBRUM.

Delivered at the Dispensary for Skin Diseases, April 4, 1873,

BY LOUIS A. DUHRING, M.D.

Reported by Dr. ARTHUR VAN HARLINGEN.

GENTLEMEN: The patient before you presents one of the commonest, and, because one of the commonest, therefore one of the most important and interesting diseases of the skin which you are likely to meet.

He is a boiler-maker by occupation, of temperate habits, and 41 years of age. His trouble began about six months ago, after he had received a scratch from a nail on the front of his leg. It soon itched, and later became wet and discharged a fluid. At present the limb is painful when he is obliged to stand upon it. Such is the history which we gain from the patient. Now let us see what the appearances are.

We have upon this leg a disease of six months' standing, distinguished by a good deal of chronic inflammation of a certain character. In places the skin is denuded of epidermis,—raw, in fact,—and you can see the corium with the torn apices of the papillæ. On close examination numerous small vesicles, the size of a mustard-seed, can be seen here and there, many of them broken open and torn.

There is, and has been, much itching, and the patient cannot resist the temptation to scratch. I might observe here, however, that in a certain number of cases of eczema rubrum, itching is not so prominent a symptom as in this case, though both itching and burning are the rule.

The general appearance of the diseased skin presents a dusky red color, with the bases of the numerous torn vesicles indicated by bright red points. From the greater portion of the surface there is a continual oozing of a pale-yellowish, sticky, syrupy fluid, which accompanies no other disease of the skin.

After a few hours' application, a bandage or stocking covering this limb will become wet through and through, and then, drying, will become stained a light straw-color, and stiffened as if with sizing.

Over some portions of the limb you will observe that the appearances are different; for here we have no redness, but crusts.

Let us examine closely these various manifestations, and see what we can learn of the history and nature of the affection we are studying.

The direct causes of eczema are various: excessive heat, blows, exposure to the weather, neglect, and dirt, are some of these, and the varied appearances which the disease often presents are in some degree connected with the immediate cause.

In the case before us we see scattered over the surface the vesicles of which I have just spoken. These are the earliest manifestations of the disease, and, as we have seen, they are still making their appearance in some places. These vesicles are the seat of great and characteristic itching, the result of which is that the vesicles are torn open by scratching.

But this is not the only result of scratching, for the epidermis is abraded, and the corium also exposed, from the bruised papillæ of which blood issues forth to color the crusts of dried serum.

Another manifestation which we must not lose sight of in the study of this case is the crusts which cover some portions of the limb.

If you will consider a moment, you will perceive that these crusts are simply the dried serous exudations, which, were the leg altogether neglected, would cover it entirely, but which can always be prevented from forming with proper attention and treatment.

Let me call your attention to a cause of the disease we are considering, in the shape of these varicose veins you perceive over the surface of the leg.

Varicose veins, especially in women, are a frequent cause of eczema rubrum. They are often accompanied by itching, which is most severe when the person is warm in bed, and during sleep the patient will scratch and tear the skin in the effort to get relief. In individuals who have a constitutional tendency to eczematous eruptions this scratching is sufficient to bring on an attack of the disease; and there is little doubt but that these enlarged veins in this man's leg have contributed materially towards bringing on the condition before us.

The disease, as you observe, is confined to one leg. Eczema rubrum is an affection which may or may not be symmetrical in its occurrence; it may attack one limb or both.

We have here, then, a case of eczema rubrum, or, as I prefer to call it, eczema madidans, from the characteristic weeping or oozing of serous exudation.

This affection is not usually self-curable, and if allowed to go on without proper treatment may last indefinitely, the area of disease extending, and the infiltration of the tissues becoming more and more marked. We often see eczema rubrum of the leg of twenty years' or even longer duration. Nevertheless, when taken properly in hand, with an appropriate course of treatment instituted, and the directions of the physician faithfully carried out, the disease is one of the most curable of all skin-affections, and when once cured is not likely to relapse.

Now as regards the treatment. You must remember that this case is one of chronic disease, and that the treatment which is highly appropriate here would not suit at all in an acute eczema of a few weeks' duration. I shall order for this man two to four ounces of sapo viridis and eight ounces of unguentum diachyli.

The former is simply a potash soap, which is manufactured in Germany. The unguentum diachyli is not so well known, and you will find the

formula for its preparation in the University of Pennsylvania Pharmacopœia and in Neumann's Hand-book of Skin Diseases.

The method of using these remedies is as follows:

The affected limb is first rubbed smartly for some minutes with a flannel rag covered with the soap, the rubbing being so brisk as even to make the skin bleed a little. Then, the soap being thoroughly washed from the surface by warm water, and the limb dried by gentle patting—not rubbing—with a soft towel, the ointment is applied, spread quite thickly on strips of soft linen about three inches wide and sufficiently long to go entirely around the leg, thus covering the diseased portion completely.

The effect of the rubbing with soap is at first to cause quite a good deal of stinging and burning, and the leg for the time looks worse than it did before.

The application of the ointment, however, soon soothes the part materially, and great comfort is experienced for the next ten or twelve hours. At the end of that time the itching has set in again, and it is time for a new application of the soap and ointment. You should, if possible, see your patient the very next day after ordering this treatment, in order to ascertain whether your directions have been complied with.

You will almost invariably find that some mistake has been made, for it is rare to find a patient who will at first carry out every detail of the plan, and, unless every thing is done properly, you will not get a satisfactory result.

This treatment should be continued, the rubbing with the soap and application of ointment being made with the same amount of care. At the end of six weeks a very decided change for the better will be observed. The vesicles will cease to form, the serous oozing will no longer be noticed, the congestion and infiltration will have disappeared, and the skin will have once more assumed a healthy appearance.

ORIGINAL COMMUNICATIONS.

CASES OF PARESIS.*

Read before the Northern Medical Association of Philadelphia,

BY A. K. MINICH, M.D.

CASE I.—William Jones, aged 53, American, widower; by trade a butcher; intemperate; common education; was admitted into the Insane Department of the Philadelphia Hospital, November, 1868. He first manifested symptoms of mental derangement about one year prior to his admission, by speaking ill of all he knew, by neglecting to keep himself as clean and neat as was his custom, and by getting up at any hour of the night and opening the doors and windows of his house. Among the first symptoms that attracted notice after his admission were difficult articulation and a staggering gait. These gradually increased until the performance of either walking or talking claimed his whole attention and required the concentration of all his powers. He could not walk and converse at the same time. If interrogated while walking, he would always stop to answer. His walk was peculiar. His feet were widely separated, and raised but slightly. He would take very short steps; to keep his balance demanded special attention. His general sensibility was somewhat diminished; taste and smell to a more marked degree. He could not distinguish between wine and beer. This fact increases in significance when we remember that his previous intemperate habits rendered him quite familiar with drinks of this kind. He would present himself in the morning almost completely covered with his own fæces, and at the same time assert most emphatically that he was perfectly clean. He had no local paralysis of motion. His appetite was good, and often voracious; nutrition seemed to be good, for he bore the appearance of ordinary health. His strength, however, was impaired; pulling his boots on and off was quite a task. His pupils were remarkably small. Thirst always great. He had very frequent attacks of diarrhœa, and his urine was loaded with phosphates. Late in his disease he would never speak unless spoken to. When about to respond to our very frequent salutation, "How are you, Mr. Jones?" there would be the usual play of muscular movements around the mouth, then following in thickened stuttering tones the invariable answer, "*Furshrate*" (first-rate.) We say invariably, for no matter how afflicted, how much prostrated by prolonged diarrhœa or otherwise, such it would be.

On the morning of the 26th of June, 1869, he was found with cold extremities, hurried respiration, and inability to speak above a whisper. There was no motor paralysis. Sensation as usual. His face had assumed the Hippocratic cast. It was evident that life was nearly extinct. On being asked how he felt, he answered, in an audible whisper, "Furshrate." In a few minutes he was again asked; he moved his lips, but I could hear nothing. Bending my head close to his, the question was repeated. He whispered "Fur" with one breath; the other syllable was drowned in the fatal throat-rattle. Poor deluded patient! He believed himself "first-rate" even when the cold damp dew of death was on his brow. A post-mortem examination showed that the immediate cause of death was meningeal apoplexy. On opening his skull, about seven ounces of serum escaped. A blood-clot presenting a large surface displayed itself on removing the dura mater from the upper surface of the brain. It was more marked over the middle lobes. The pia mater and arachnoid were congested and thickened, that portion covering the apices of the anterior lobes particularly so. The gray matter of the brain was atrophied, and somewhat softer than the white portion, which was abnormally firm. Ventricles empty. Septum lucidum thickened. Whole floor of fourth ventricle covered by minute granulations. A supernumerary artery, anastomosing with the anterior communicating, and coursing into the fissure between the anterior lobes, existed.

* See *Philadelphia Medical Times* for December 21, 1872, p. 179.

Case II.—Powell Roberts, aged 40 years; American; single; laborer; temperate; common education; was admitted August, 1868. He was an epileptic since the age of 14 years. The first symptom which attracted the attention of his friends was his disposition to wander from home. At the time of his admission he very often was under the impression that he was engaged in manual labor when in reality he was idle. He would pick at his clothes, tear them into shreds, unite them to form a line, and show by his movements that he believed himself to be on the bank of some stream, enjoying the life of a lucky angler. True to the ambitious nature of every paretic, he always caught "big fish." These symptoms, as well as embarrassed utterance and irregular muscular movements, attended him throughout his disease. His appetite was very good, but he had frequent attacks of diarrhœa. He would pass his urine and fæces in bed, and wallow in them apparently with comfort. Urine very phosphatic. He died April, 1869, in a state of dementia, of exhaustion consequent upon a large bed-sore. Post-mortem examination showed traces of inflammatory change. Pons varolii and septum lucidum were found softened to a marked degree. He had a finely-developed head.

Case III.—Elizabeth Daily, aged 30 years; married; two children; temperate; common education; was admitted August, 1868. Symptoms of disease first manifested by carelessness in household duties. Within the last fourteen months (December, 1869) she has had several attacks of acute mania, the last of which was followed by the never-failing symptom of paresis, *i.e.*, a disposition to boast. Her speech is thick, tremulous, and drawling. Lips quiver. Though a pauper, her wealth and generosity are unbounded. She takes great pride in talking of incidents of her married life, her horses, carriages, colored servants, but more particularly her last confinement. On this occasion she says she gave birth to thirteen full-grown children after being but nine weeks in the "family way." All these were born with long black hair which hung down over their shoulders, and on the instant of their exit jumped from the bed and frisked around the room. This wonderful and copious disgorgement, she tells us, did not cause her any inconvenience, as she was in bed only an hour, and was knitting at the time. She died February, 1871, full of hope and generous impulses.

Case IV.—Frederick Stricker, aged 52; married; four children; tailor; moderate drinker; was admitted June, 1869. Five months prior to this date he began to inquire of his friends whether they considered him a fit subject for an insane-asylum. At the time of his admission, though very poor, he was seriously contemplating making weighty purchases. There was no permanent hallucination. Was suffering at the time of admission from multiple chancres, which he contracted a few weeks before. He always expressed himself as being "first-rate;" laughed heartily, and was in the best of spirits. He was very anxious about his large establishments and his numerous workmen. He feared their families might suffer during his absence. His lips quivered, and his hands were very tremulous, so that his chirography was almost unintelligible. He attempted to work at his trade in the hospital, giving evidence of great confidence in himself, but his work was indicative of marked impairment. I remember a pair of pantaloons that he spoiled by an attempt to produce an alteration in their fit; one leg he narrowed down to encase a broom-stick, the other he insisted must be enlarged. He could scarcely thread a needle. When asked to protrude his penis, his trembling hands would invariably open his shirt-collar. In response to a call of nature to move his bowels, he would search diligently for a chamber, sit upon it without lowering his pants, defecate in his drawers, and then carefully replace the empty pot under his bed. His gait was shuffling. Appetite very good. When asked when he was going home, he would answer according to the time of day the question was put. If before eight o'clock A.M., or after four P.M., he would invariably answer, "At eight o'clock;" if between eight A.M. and four P.M., he would answer with equal certainty, "At four o'clock." These answers were given in tones of positive assurance. He died April, 1870, ten months after admission, of apoplexy.

Case V.—Amelia Noble, aged 37; single; common education; died September, 1869. She presented all the symptoms of paresis throughout her disease, which lasted about two and a half years. She had frequent attacks of epileptic convulsions. Right-sided ptosis existed. Aside from this there was no paralysis. The post-mortem appearances of her brain and skull were very singular and interesting. One-third, rather more, of the right hemisphere was wanting. This was at the expense of the anterior and middle lobe. Upon looking down upon the brain the corresponding side of the cerebellum was visible. The convolutions of gray matter covering this surface were not interfered with. They dipped as deeply as upon the sound side. It appeared as though that portion of the brain had collapsed, or as if the interior white portion had been scooped out, admitting of a sinking of the cortical substance. This space, *i.e.*, between the sunken portion and the skull, was occupied by a sac—the arachnoid—containing one pint of a clear serous fluid. This dropsy was local, owing to the attachment of the arachnoid to the margin of the depressed portion of the brain. The bones in contact with the sac were partially absorbed, rendering the ordinarily obtuse prominences sharp and pointed. The right side of the skull was but half the thickness of the left, and minus the diploïc structure. The grooves for the meningeal vessels were obliterated upon the affected side. The fossa above the right plate of the orbital process of the frontal bone was double the size of the left. Cribriform plate of ethmoid depressed on right side to such a degree as to approximate the crista-galli and orbital plate of left side. The whole of the right half of base of skull bulged out, making the anterior and middle fossa of base of skull half as large again as the left. The bones of the left side of the base of the skull were much more dense than on the right side.

Right lesser wing of sphenoid projecting up, forming a long sharp process. A marked bony prominence existed at the junction of the basilar process of occipital and sphenoid. Carotid and vertebral arteries ossified. Pacchionian bodies wanting on right side, but profuse on left. In their midst was, as a result of inflammation, a deposit of fibrin about the size of a cherry. Similar fibrinous deposits were found scattered over the arachnoid. A deep fossa corresponding to the situation of the Pacchionian bodies existed on the left side. Right lateral ventricle small, containing fluid. Weight of brain, thirty-five ounces.

LIGATION OF THE FEMORAL ARTERY FOR LARGE ANEURISM OF THE POPLITEAL ARTERY—RECOVERY.

BY J. EWING MEARS, M.D.

MAY 14, 1871, I was asked by Dr. J. T. Rowland, of Media, Delaware County, to see in consultation a patient who was suffering from an aneurism of the left popliteal artery. The following history of the case was obtained by his son, Dr. F. F. Rowland, then a student of medicine:

"T. K., æt. 66 years, native of Ireland, temperate, farmer by occupation. With the exception of several attacks of rheumatism, he has enjoyed good health. He has never sustained any injury to which he can attribute the origin of the tumor. The first intimation he had of any trouble in his leg was in September, 1870, when he noticed that in tying the string in the shoe of the left foot a tingling sensation was felt, which extended up to the knee. This condition continued until January 1, 1871, when he discovered a tumor, about the size of a small egg, occupying the popliteal space. At first the growth of the tumor was slow. Within the past two weeks the increase in size has been very rapid, measuring at this date twenty-six inches in circumference."

On examination, a large, irregular-shaped tumor was found occupying the left popliteal space, and encroaching, to a great extent, upon the external surface of the limb. The surface was cold and had the livid hue which indicates venous congestion. Large veins were distinctly visible coursing over it. The leg was flexed at an angle of 60°, and was greatly increased in size by œdema. Pulsation could not be detected, and the aneurismal bruit was distant and indistinct.

During the past two weeks the patient had suffered intense pain from the pressure produced by the rapidly enlarging tumor, and was greatly exhausted by pain and loss of rest. Anodynes in large doses failed to alleviate his sufferings, and he was extremely anxious that something should be done for his relief. A careful examination of the heart and superficial arteries was made, in order to ascertain their condition. This examination showing them to be free from disease, I advised ligation of the femoral artery according to Hunter's method. The plan of treatment being accepted, I cut down upon the vessel, and surrounded it with a large silk ligature, which was applied with moderate force to the artery and was successful in controlling the circulation through the vessel and aneurismal sac. The limb was then enveloped in cotton wool, kept in place by a loosely-applied roller, and half a grain of morphia was given hypodermically.

Under the watchful care of Mr. Rowland, the patient made a satisfactory recovery, the ligature not being detached until the *twenty-sixth* day. The pain was relieved at once, and the tumor slowly decreased in size. At this time, two years after the operation, the measurement about the knee is fifteen inches, and a small tumor about the size of an English walnut occupies the popliteal space. The patient enjoys good health, and is able to perform his ordinary duties about the farm.

Remarks.—The very unfavorable condition of the patient, exhausted by pain and loss of rest, with the character of the aneurism from which he was suffering, rendered the prognosis in this case doubtful under any plan of treatment. The condition of the patient was such as to imperatively demand that relief by surgical treatment should not be long delayed, and at the same time his state, as well as the nature and condition of the aneurism, made the question as to the selection of the method of treatment one of great importance, and one which required most careful deliberation. Treatment by compression, so frequently successful in ordinary cases of popliteal aneurism, did not appear to be applicable in this case, for these reasons: 1. The possibility of failure, and, as a consequence, the continuance of the pain and other unfavorable symptoms. 2. The danger of increasing the œdema and venous congestion, already of a threatening character, in reference to the production of gangrene.

The fact also that there were not at hand proper appliances for making compression had its influence in the decision to reject a trial of this method of treatment,—a matter of importance always; especially does it obtain in such a case as the one under consideration.

Amputation at the middle of the thigh was deemed unadvisable on account of the condition of the patient. The shock consequent upon an operation of such magnitude would have produced, in all probability, a speedily fatal termination.

Ligation of the femoral artery, therefore, while not free from some of the objections properly urged against other methods, seemed to be the plan of treatment presenting the most favorable prospects of success.

The employment of a large ligature, and its application to the vessel with moderate force, without doubt contributed to the successful issue by preventing the too rapid separation of the coats of the vessel, with the hazard of producing secondary hemorrhage.

A GYNÆCOLOGICAL CURIOSITY.

BY JOSEPH R. BECK, M.D.,

Fort Wayne, Ind.

ON the 14th of November, 1872, I was consulted by Mrs. J. H. S. for advice in regard to a variety of symptoms, chiefly referred, however, to the pelvic region. She states that she missed her menstrual epoch, last due on the 12th of October,

a little more than a month prior to the date of the consultation. Inasmuch as a majority of the symptoms pointed decisively towards the existence of pregnancy, there was some difficulty in regard to the diagnosis of the case; but on taking into consideration the fact that the symptoms spoken of seemed to be those due to a *two to three months'* pregnancy, which idea was manifestly to be excluded from this case, I deemed myself to be warranted in making an exploration of the uterus.

For the accomplishment of this purpose I introduced a large-sized sponge tent, which, entering the cervix uteri without the least difficulty, was permitted to remain twelve hours before being extracted. The dilatation of the os and cervix uteri, following the use of the tent, revealed the presence of a good-sized polypous tumor, attached to the fundus of the uterus by a pedicle about one-fourth of an inch thick. The uterus was enlarged by the tumor to nearly the size of a five months' pregnancy, and the polypus filled the cavity almost completely.

By reason of existing circumstances, which could not be satisfactorily controlled at the time, it was deemed best to defer the operation for the removal of the polypus until some time in March following, when her affairs could be arranged more to order. Accordingly, she was temporarily dismissed from treatment, and I did not again see her until Sunday morning, February 23, 1873. In the interim, however, I prescribed for an intermittent with which she was troubled, perhaps two or three times.

On the morning of the date last mentioned I was sent for to see her, and found her suffering from hypercatharsis. She stated that on the previous day, Saturday, at about four o'clock in the afternoon, she had taken four pills from a box labelled "Bragg's Indian Queen Pills," for the purpose of being purged. At seven o'clock in the evening, not having heard from the first four, she took four more of the same pills; and again at half-past eleven, no movement having been had in the mean time, she took the third dose of four more, making twelve pills in all. On Sunday morning, however, she began to be purged violently, the purging being accompanied by a great deal of violent tenesmus and vesical irritation. For this she was ordered sulphate of morphia in half-grain doses, repeated every third hour.

She soon became quiet, and so continued until Tuesday morning, when she began to complain of periodic pains in the pelvic region, very like, in her opinion, to labor-pains. For these she was ordered to resume the anodyne in the same doses; and while she was rendered more comfortable thereby, yet the pains did not by any means cease. I saw her again at noon, but, deeming the matter to be of slight importance, and not having a thought of the polypus in this connection, I made no vaginal examination.

Sitting in my library, just at tea-time of the same day, I was called by the husband of my patient to see his wife in a hurry, as she had had a discharge from her vagina of some "solid body." Upon making an examination, sure enough I found lying just outside the vulva my old acquaintance, the polypous tumor, entire in every respect, save that the pedicle was torn off very close to the body of the tumor. I examined the uterus, and found the remainder of a long pedicle *in situ*, most of which I removed, finding not the least inversion of the uterus present.

Upon gathering up the polypus for removal, I was very much surprised to find lying about a foot from the vulva, and nearly beneath the knees of the patient, a fœtus, entirely enveloped in its membranes, which were unbroken, and with the placenta and cord perfectly intact,—the placenta shaped like and about as large as a fifty-cent fractional-currency bill. The fœtus could not have been of more than four or five weeks' development, and the shape of the placenta, together with the existence of the polypus in utero, determines in my mind the fact that the placental attachment was probably near, if not *in*, the cervix uteri.

That the pregnancy occurred while the uterine cavity was occupied by the polypus, cannot be doubted; and I think I am justified in the conclusion that the placental attachment was very low down indeed. The patient did not lose three ounces of blood in all, and the uterus, responding promptly to the stimulus of ergot, contracted powerfully. The patient made a good recovery in four days from the evacuation of the uterine contents.

15 East Washington St.

EXCRETION OF IODINE AND BROMINE BY THE MAMMARY GLANDS.

BY J. ENEU LOUGHLIN, M.D.,

Philadelphia.

THE excretion of certain chemical substances, whether educts or products of bodies ingested as food or as medicines, by the urine, has been proven by the experiments of Lehman, Gorup-Besanez, Heller, and a host of other observers. A similar set of experiments upon the excretion of substances by the mammary secretion has not, as yet, been fully completed. During the autumn and winter of 1871 and 1872, researches upon the excretion of iodine, bromine, and sulphate of quinine, by the mammary secretion, led to the following determinations:

1. Iodine. Two ounces of milk were obtained from a woman who had for two weeks taken the following prescription:

℞ Potass. iodid., gr. x.,
Syr. sarsap. comp., ℥j. M.
Sig. Three times daily.

The sample of milk was divided into four portions, marked 1, 2, 3, 4. No. 1 was treated with acetic acid gtt. x, gently evaporated to dryness, mixed with two ounces distilled water, and filtered, the filtrate evaporated to dryness, the residue mixed with peroxide of manganese ℥j, sulphuric acid ℥ss, and distilled; the distillate mixed with bisulphide of carbon, ℥ij, and set aside. Color test marked perceptible. No. 2, gently evaporated to dryness, treated with chlorine-water, filtered,

and the filtrate mixed with water and bisulphide of carbon, and set aside for twenty-four hours.

Bisulphide of carbon was more strongly tinged than in No. 1. Comparison yielded color test marked very perceptible.

No 3 was evaporated to dryness, mixed with sulphuric acid and peroxide of manganese and distilled, first, through a tube twelve inches long, one-half inch bore, thence through a Mohr's condenser; both, carefully examined in the direction of their length, showed no violet tinge. Bisulphide of carbon passed through tube and condenser, and mixed with distillate, became tinged after seventy-two hours' exposure; color test faint.

No. 4 was evaporated to dryness, treated with distilled water, and filtered, the filtrate strongly concentrated, and mixed with its volume of solution of nitrate of silver. At the end of six days examined; no precipitate visible.

Similar experiments were performed with milk from a patient taking sixty grains bromide of potassium per day; chloroform being substituted for bisulphide of carbon. Nos. 1 and 2 were successful, No. 3 partially successful, and No. 4 wholly unsuccessful. More time was required to develop bromine tints than iodine; the period of forty-eight to ninety-six hours being required. Alcohol had a very happy effect in hastening the tints.

A RARE CASE OF RESTITUTION OF THE MEMBRANA TYMPANI AFTER FIFTEEN YEARS OF DISEASE.

BY C. H. BURNETT, M.D.,

Aural Surgeon to Philadelphia Dispensary and the Presbyterian Hospital.

ON the last day of July, 1872, Christian L., 15 years old, a German, presented himself for treatment at the Philadelphia Dispensary. His complaint was, that since infancy he has had a discharge from the right ear, with progressive hardness of hearing. He says that there has never been any discharge from the left ear; all of which statements were corroborated by his father, who accompanied him.

My examination revealed the presence of a copious light-green discharge in the meatus. When this was removed I discovered a large perforation in the postero-superior quadrant of the membrana tympani. Hearing-distance for the watch $\frac{1}{4}$ of the norme. Eustachian tube pervious to the current of air from Politzer's apparatus. After cleansing the meatus thoroughly, I introduced ten drops of a strong solution of nitrate of silver, ʒj–fʒj, and ordered him to syringe the ear *gently* three times daily, at home, and after each syringing to instil into the meatus ten drops of a solution of sulphate of zinc (gr. ij–fʒj), allowing them to remain in contact with the affected parts five minutes.

One week later I saw the boy again, and ordered a continuation of the treatment already described, since his condition had greatly improved. By the middle of August the discharge had ceased, and the hearing for the watch had increased to $\frac{1}{2}$ of the norme. On the 19th of August the perforation in the membrana tympani had closed, and the membrane, which at the time of the first examination was swollen and discolored, had assumed the normal shining appearance. The hearing had become relatively normal, *i.e.*, the previously affected ear had assumed a hearing-power equal to that of the unaffected ear, but neither ear was endowed with *sharp* hearing-power, and probably had not been since early childhood. The interesting features of this case are—

1. The length of the duration of the disease.
2. The exquisite restitution of the membrana tympani.
3. The restoration of the hearing.
4. The obvious benefits of the treatment.

127 South Eighteenth Street.

DEFICIENCY OF PECTORALIS MAJOR AND MINOR MUSCLES ON ONE SIDE.—In our issue of April 19 we quoted two reports of these anomalies. Another is put on record in the *Lancet* for March 29, by Mr. John Tweedy, M.R.C.S., who says:

"In January last a muscular young man, aged twenty-three, came under my observation. In examining his chest I noticed a curious deformity resulting from absence of the costo-sternal portion of the pectoralis major muscle, and the whole of the pectoralis minor, and probably also of the upper digitations of the serratus magnus muscle on the right side.

"On making a more detailed examination, the clavicular portion of the great pectoral muscle was found to be somewhat hypertrophied, but the muscles of the back and upper limb were normal. The ribs and sternum were equally well developed on both sides of the body. The right nipple was placed over the fourth rib three and a quarter inches from the mid-sternum, and six inches from the sterno-clavicular articulation; the left nipple was also on the fourth rib, the above measurements being four and a half and seven inches respectively. The circumferential measurement of the chest at the level of the nipples was thirty-five and three-quarter inches, of which the right side took up seventeen and a quarter inches, and the left eighteen and a half inches. The measurement round the right arm at the insertion of the deltoid muscle was ten and a half inches; round the left, eleven and a half. None of the movements at the shoulder-joint were in the least impaired. When the arm was raised, the axillary artery could be felt pulsating immediately under the skin, but in other respects, as far as palpation could determine, the vessel was normal. Although the right arm is very powerful, the man is left-handed; and this may account for the slight difference in the measurement of the two arms. With the exception of an oblique inguinal hernia on the right side, no other abnormal condition could be detected in any part of the body; nor did the man know of any muscular peculiarity in any of his relatives."

Mr. Tweedy refers to analogous cases reported by Poland, Macalister, Quain, and Barkow.

DR. MATTHEWS DUNCAN gives the following rule for calculating the time of expected confinement: Ascertain the day on which menstruation ceased, take that day nine months forward, as two hundred and seventy-five days, and add three days to make up two hundred and seventy-eight, the average time of pregnancy.

THE *Athenæum* states that a substance called ceresine, obtained as a by-product in purifying ozokerite for the manufacture of paraffin, is now used in Vienna as a substitute for bees'-wax in certain medicinal preparations.

PHILADELPHIA

MEDICAL TIMES.

A WEEKLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, MAY 10, 1873.

EDITORIAL.

THE BOSTON DIFFICULTY.

FROM very vague items in the daily papers, our readers have doubtless become aware that certain members of the Massachusetts Medical Society are on trial, charged with practising homœopathy. Exactly what is being done we have been unable to learn by study of the secular papers of Boston; but we believe a court medical is in session, unfortunately with closed doors. This matter is one of no ordinary moment, and it is to be hoped that those having it in charge will proceed with the utmost prudence and judgment. The question, we take it, is as to the right of the adherents of any exclusive dogma to demand the privilege of entrance or of continued membership in a society composed of practitioners of scientific medicine, and their power to compel their admission to such privileges.

If an association such as the Massachusetts Medical Society has the right to frame its own laws, it certainly has the right to decide as to the qualification for membership. If those conditions are infringed by any of its members, it as certainly has the right to expel the offending persons. Should this be denied them, the sooner they dissolve their organization and form a new one, the better.

The fact is that the bigotry and narrow-mindedness are not on the side of the so-called "regular profession," but with those who would exclude, if they could, all practice not based on their own notion. But if it is true that "*similia similibus curantur*," it must be so in all cases, simple or complex, slight or desperate. That this law is not of universal application, or at least cannot be always appealed to by its adherents, is abundantly proved by their own published records. And yet they, hugging their dogma with one hand, and with the other continually gathering experience from "allopaths," who "bleed, blister, leech, and purge their patients to death" (see any number of any homœopathic journal), cry aloud for recognition as brethren from these "old fogies" and "conservatives."

The points in regard to which prudence and caution are especially called for in the conduct of this matter are, the clear showing of the exact difference between honest homœopathy and honestly scientific practice, and of the reasons why the two cannot be made to harmonize, or even to work side by side in any medical organization. There must be no martyrizing of the dogmatists, no shirking of any of their arguments, no stifling of any claims they can sustain. We hope, and are willing to believe, that the business is in safe hands.

ANOTHER LIFE-INSURANCE CASE.

IN our last issue we commented upon a case in which suit was brought against the World Mutual Life-Insurance Company for the amount of a policy, payment of which was refused on the ground that it was obtained by fraud. The jury gave a verdict against the company, but the judge set it aside as contrary to the evidence, and ordered a new trial.

Another case is reported as follows in the *Public Ledger* of May 1:

"The Supreme Court of the United States rendered a decision yesterday in the case of the Mutual Life-Insurance Company of New York *vs.* Ferry. The company had refused to pay the insurance on the life of a person who committed suicide by taking poison. The facts show that the reason of deceased had become 'so impaired by insanity that his suicide was not his voluntary intelligent act.' On these facts the court holds that the company is liable, although the policy contained a provision against suicide."

It certainly seems as if not only the law but the equity of the matter would indicate the justice of this ruling. We are aware that in most if not all life-policies there is a clause making them invalid in case of the suicide of the insured; but this must manifestly be set aside if the act is shown to have been committed while in a state of insanity developed subsequently to the obtaining of the policy. And it is known to be the opinion of some eminent

psychologists that no sane man ever takes his own life; in other words, that suicide is *primâ facie* evidence of unsoundness of mind. Probably upon this ground, it has generally been ruled that suicide did not invalidate policies of life-insurance; and it may perhaps be matter of surprise that any company should contest payment, unless they could clearly show either that the act of self-destruction was committed with full possession of reason, or that the insanity had existed at the time of effecting the insurance.

THE ABUSE OF ALCOHOL.

ONE of the matters with which legislatures have for many years vainly struggled is the regulation of the sale of intoxicating liquors. That a vast amount of suffering and crime may be directly traced to the vice of intemperance, needs no proof. But whether laws can be framed so as to check the evil at that stage,—at the point when it is most difficult to reach it, and when evasion is easiest, as witness the operation, or rather the ineffectiveness, of the so-called "Maine law,"—we greatly doubt.

An easier and, we believe, a more practical way of accomplishing the object would be to make the seller of liquor responsible in due degree for whatever mischief might arise from his traffic. Let the man who knowingly furnishes the means of intoxication to any one already inebriated, or to any one in the habit of drinking, be held as an accessory to any crime committed by his victim, and we are confident there would be fewer instances of such crime. As it is now, a man may prime another for any brutality, and go scot-free; he may see his customer becoming more and more excited, less and less able to control his passions, and still supply him with the maddening poison, knowing that he himself is held blameless for the result.

The great difficulty lies in the influence of the liquor-selling interest to prevent any legislation which would interfere with their trade, and in the opposition of a vast number of voters to any action which would hinder their free indulgence of appetite. And yet we cannot but believe that such protests as the one we print in another column, signed by many of the leading physicians of New York, might be made daily for years, without any appreciable effect on the prevalence of drunkenness, or its legitimate fruit of crime and misery. They are true and just, but they do not touch the evil in its most vulnerable point. Positive measures are of far more value than abstract generalities, in dealing with social abuses.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

AT a conversational meeting held April 9, 1873, at 8 o'clock P.M.,

DR. W. B. ATKINSON, PRESIDENT, in the chair,

Dr. J. G. STETLER introduced Dr. J. W. GADSDEN, veterinary surgeon, who then exhibited a number of interesting and beautiful calculi, taken from the alimentary tract of the lower animals; and also made some remarks on a recent case of death in a horse from an "oat-hair" calculus. When the abdominal cavity was opened, the stomach and intestines appeared healthy. On further examination he found a calculus in the colon, just where it makes its second curve across the spine; here it is small in calibre in comparison with the other portion of the large intestine which ends in the rectum. He here exhibited the calculus, and said it was not a true calculus, but one of those denominated "mixed calculus," or "oat-hair concretion." Bad or innutritious provender will often produce this kind in the horse. Thin oats has a considerable quantity of hair at the extremity of the grain, which gives rise to this formation. If by any accident of the horse, as a sudden slip, they be moved from their location, symptoms more or less acute will follow, and often death of the animal, either from mechanical obstruction, or inflammation; sometimes they cause rupture.

Dr. WILLIAM GOODELL opened the discussion on prolapse of the womb by the following remarks:

He divided this disease into three varieties: (*a*) prolapse proper, viz., a substantial descent of the womb; (*b*) prolapse of the cervix from growth of its sub-vaginal portion; (*c*) prolapse of the cervix from elongation of its supra-vaginal portion. In the first variety there is a descent of the whole womb. In the other two, although not essential, there commonly is a greater or less sinking down of the fundus, either from the weight of the cervix or from traction upon it.

The first variety he did not believe to be so rare as stated by late observers. He had repeatedly met with it in old maids, whose vaginas had become relaxed by the absorption of the fat-packing in the pelvis. When the womb is thus deprived of its lower supports, it descends usually in a state of retroversion or of retroflexion.

As an efficient cause of this displacement, great stress has been laid upon the loss of the sigmoid curve of the spine, by the infirmities of age or disease. The axis of the trunk then tends to coincide more and more with the axis of the superior strait, and the brunt of the weight of the intestines is spent upon the womb, which no longer lies under the shelter of the sacral promontory and of the lumbar vertebræ.

In young women, general uterine congestion, perineal lacerations, and the prolonged use of the obstetric binder were common factors in the production of this displacement. The obstetric binder he deemed useful for the first twenty-four or forty-eight hours after labor. For it filled up the void left by the emptying of the womb; it gave a grateful support; it prevented a concealed hemorrhage, and presented a bar to the ingress of air into the uterine cavity. But when kept on for the purpose of preserving the shape, by paralyzing those abdominal muscles which it is intended to strengthen, it not only defeats this object, but crowds the womb down into the pelvic cavity, and, by impeding the freedom of the circulation, impairs the process of involution. In lacerations of the perineum, he always performed the immediate operation, taking care, as advised by Dr. D. H. Agnew, to introduce the first suture some-

what below the lower angle of the rent, and to pass it completely around the wound in order to purse up the tissues and insure perfect approximation.

In the treatment of this kind of prolapse there is no better pessary than Hodge's, or Smith's modification of it. It acts physiologically by restoring the posterior wall of the vagina. Whenever the relaxation of the parts is great, the physician may be driven to the use of the ring pessary; but this should always be deemed a misfortune, as by dilating the vagina it tends to increase the cause of the displacement rather than to remove it. When, as in some old women, the vagina is much shortened, and the vaginal portion of the cervix is obliterated, Cutter's pessary answers an admirable purpose. When prolapsed, a congested womb should be treated not only with a pessary, but also by scarifications, the hot douche, and the usual local remedies.

The second variety of prolapse is rare, at least in a very marked degree. It sometimes results from the traumatisms of labor, or from irregular post-partum involution. It is, perhaps, more commonly a congenital affection. One of its modifications, the conical cervix, is often a cause of dysmenorrhœa and sterility. This form of prolapse needs no treatment unless it interferes with the comfort and the fecundity of the woman. Whenever the cervix is unduly long, it may be amputated; but the conical cervix rarely demands the knife. Dilatation by sponge tents, just before the catamenia, will usually be followed by conception; and parturition completes the cure.

The third variety of prolapse he deemed essentially a hernia of the bladder and vagina. In other words, this condition is due to a primary prolapse of the bladder and vagina, which, by traction on the cervix, draws out the supra-vaginal portion, and which, by impeding the circulation in the sub-vaginal portion, begets an eversion of the os and a hypertrophy of its lips. In this form of displacement, the cervix, by eversion, often resembles the penis of a horse or the snout of a pig. Very commonly, from the exposure to air, friction, and urine, it is the seat of two or more true ulcers, always excavated and sometimes covered by a diphtheritic exudation. The fundus may, or may not, descend very materially; and upon this circumstance will depend the kind of treatment. The sound usually passes in to a distance of at least five inches. The vagina will be found wholly inverted and the bladder greatly prolapsed.

In this form of prolapse pessaries are usually of no avail whatever. They cannot keep up the prolapsed cervix without forcibly bending it almost double, and the pain is therefore unbearable. Whenever the fundus uteri has barely sagged down, a radical cure is attainable by amputating the sub-vaginal portion of the cervix. The suppuration from the open wound sets up the process of involution, and also such alterative changes in the womb as shall cause it to sustain the bladder and vagina *in situ*. But if the fundus is low down or wholly extruded, then, in addition to the ablation of the vaginal cervix, must the vulval opening be contracted by the operation of episio-perineorrhaphy. By combining these two operations he (Dr. G.) had obtained complete success when every other measure had failed even to relieve.

Dr. J. C. MORRIS said that in cases of procidentia he had much faith in mechanical support of the uterus. He usually employs a ring supported by a spiral stem connected with an external wire, bent so as to fit the person, and sustained by a tape passing around the loins. He considered the excision of the os as by no means an easy or trifling operation; severe secondary hemorrhage is apt to occur. Displacement of the womb causes congestion: hence he thought it rational treatment to replace the womb first, and then to treat the congestion. In so doing he had seen great advantage from the use of ergot. In one patient he had observed the uterus reduced from 6½ inches to 3½ inches internal diameter by three weeks' use of iron and ergot. This medication internally, with mechanical support and astringent injections locally, he had found to be reliable treatment. He would inquire of Dr. Goodell as to the relative efficacy and advantage of ergot used hypodermically and internally. Was ergotine used hypodermically different in its action?

Dr. H. H. SMITH could not permit the discussion to close without offering a caution to those advocating excision of the neck, or a portion of the neck, of the uterus. It had been his good fortune in 1839 to follow Lisfranc at the Hospital of La Pitié, in Paris, for six months, and he had frequent opportunities of seeing this operation performed. In most instances the hemorrhage was profuse, and occasionally not controllable even by the actual cautery applied to the cut surface of the uterus, packing of the vagina with charpie and astringents being subsequently necessary; and gentlemen should be careful to watch such cases.

Dr. GOODELL replied, he had purposely avoided using the term *procidentia*, because it had no fixed meaning in obstetric literature. The terms *complete* and *incomplete* prolapse would far better express the degree of displacement. Dr. Morris's case he deemed a typical one of subinvolution, viz., of enlargement of the womb in its totality, and not of the disease under consideration. In his hands the treatment by ergot had also proved very successful, especially when this drug had been administered hypodermically. As to the use of ergot hypodermically, he said experience had proved it of greater efficiency when thus administered; that there was no more prompt method for arresting post-partum hemorrhage; that, following the advice of Hildebrandt, he had recently proved its great value in alleviating the symptoms and reducing the size of mural and sub-mucoid fibroids. The only objections to its use lay in the discoloration of the skin at the seat of puncture, and in the local pain it sometimes gave. The hypodermic dose was from two to six grains of ergotine, or from twenty minims to a syringeful of the officinal fluid extract. He replied to Dr. H. H. Smith by saying that Lisfranc did not use the écraseur or the galvano-cautery, but the knife; further, that in this form of prolapse the supra-vaginal portion of the cervix is so attenuated and wire-drawn that the risk from hemorrhage is not great. The chief danger of the operation he deemed to be possible invasion of the retro-uterine peritoneal fold. This had repeatedly been cut open, but in no reported instance has such accident been followed by death.

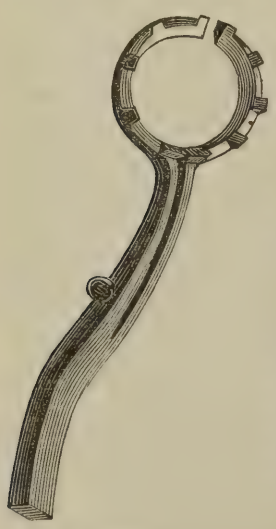
Dr. M. O'HARA remarked that he had no experience in the hypodermic use of ergotine, but would fear the formation of abscess. It has been recommended to be used with caution as an injection in uterine hemorrhage, by reason of the fact that when powdered ergot has been applied to abraded surfaces in the lower animals it has produced sloughing. A German writer is quoted in Hays's *Journal* for January, 1873 (p. 259), as recommending it as very efficacious in tubercular hemorrhages. The solution used is ergotine gr. v to ℥j of glycerine; one-fifth of this being used once or twice a day, and injected near the pectoral muscle. He also mentioned that in one case where he had administered an ordinary dose of morphia for relief of the pain accompanying spinal meningitis, the patient was apparently stricken dead for a minute. He was not narcotized, but shocked. He had also seen alarming sickness frequently follow a hypodermic injection of morphia, without any narcotism. He is not so prone to use it now as formerly. Some deaths have occurred from its use. The variable effects which follow its use

must be attributed to idiosyncrasy. If this be the case we can never be certain. In a case of sciatica, he commenced with small doses of morphia, and increased until he reached as high as one grain, without producing much effect; in the same patient he also used atropia, increasing the dose until he reached $\frac{1}{16}$ gr. This was combined with morphia without any effect. The pain and stiffness disappeared spontaneously at the end of three weeks.

Dr. HALL showed to the Society an instrument for the purpose of fixing the cornea during the little operation of removal of foreign bodies which have become impacted in that structure. Specks of emery, fragments of iron, flying from the chisels of the workmen as they are cutting bolts in boiler-works, and "spalls" (as they are called in laborers' vernacular) of stone, in the operations of the stone-mason, are the daily causes of these accidents. And although the removal of these troublesome guests is generally a simple procedure, still sometimes the "minor" rises to a "major" operation, either from the depth of impaction, the pusillanimity of the patient, or the difficulty of fixation of the globe. The surgeon may take hold of the conjunctiva with a forceps in the fond hope that he has a firm hold of the bulb, and he will find it entirely beyond his control. To obviate this difficulty, Mr. Bader, of Guy's Hospital, invented a forceps with a single sharp "biting" tooth, for the avowed purpose of seizing the sclerotic beneath the conjunctiva, so as to get a firmer "purchase" on the ball, and to prevent giving way or stretching of the conjunctiva.

This Dr. HALL saw, and did not like, as used by Mr. Bader in his clinic at Guy's, in the winter of 1871–72.

Streatfeild's double-pronged forceps, which is really two forceps in one, and is like giving one an extra hand, Dr. H. had always found a great comfort in these troublesome rolling eyes. But this instrument seemed to him to be superior to anything that he had seen, and he only wondered that no one had thought of it before.



It is merely a ring to surround the cornea; a few dentated processes bed themselves in the pericorneal conjunctiva, and thus hold the bulb. It was made by his friend Dr. WM. J. DAVIDSON, of Staunton, Virginia, who was present as a visitor to the Society. The doctor was house-surgeon to the Wills Ophthalmic Hospital in 1855, and his residence there gave him a taste for ophthalmic matters, and served to keep up his interest therein after he had settled in his beautiful mountain home. From his known familiarity with ophthalmic affairs, he was called upon from all around the country-side, to remove foreign bodies from the eye; and, to secure the bulb, he bethought him of some improvement of the fixation-methods now in vogue. This little implement is the result of his cogitations. Not having an instrument-maker at his elbow, he was forced to be his own workman. It is made of hard rubber, cut, shaped, and smoothed with a penknife and sandpaper. The only part of it not the work of the doctor's own hands is the little metal screw to expand or contract the circle; and this was made by the village watchmaker. The hard rubber is not so unpleasant to the eye as "cold steel," and the little projections on the disk sink into the conjunctiva and hold the eye gently but with complete steadiness.

Dr. MCREAN asked what was the best method to treat hemorrhoids occurring during pregnancy. A patient now under his care was within three weeks of her confinement, and had suffered from severe hemorrhage. The piles gave her extreme pain, which he had relieved by the use of an unguent containing gallic acid and morph. acetat.

Dr. SMITH, in reply to Dr. MCREAN, stated that he could not suggest anything more than the usual treatment, as ice applied on a towel after the piles were reduced, or the use of a hemorrhoidal truss, or a firm compress with a T bandage, or a rectal bougie. Such hemorrhoids usually disappeared after delivery. While he had the floor, he would call the attention of the Society to the frequency of the secondary effects of opium, especially the nausea and prostration some hours after the use of morphia either by the skin, mouth, or anus,—and stated that a prominent druggist had recently told him that other physicians had complained of the same result. As it was possible the market was not supplied with so good an opium as formerly, he wished to obtain the experience of any of the members present on this question.

Dr. GOODELL said he had never seen any danger from the bleeding of hemorrhoidal tumors. If the remedies suggested by Professor SMITH should fail, he would recommend the doctor to rupture the sphincter ani.

REVIEWS AND BOOK NOTICES.

CLUB-FOOT: ITS CAUSES, PATHOLOGY, AND TREATMENT. Jacksonian Prize Essay for 1864. By WILLIAM ADAMS, F.R.C.S. With one hundred and six Wood Engravings, and six Lithographic Plates. Second Edition. 8vo, pp. 464. Lindsay & Blakiston, 1873.

We take pleasure in calling attention to this work, as one of the most recent, and one of the best, if not the best, upon an important but too much neglected subject. No class of deformities requires more careful and judicious treatment and closer watching, as well as a more definite course of management in all respects; and yet the diversity of views as to the treatment of club-foot, whether by mechanical or cutting operation and immediate or subsequent extension, is certainly remarkable.

The natural resource to the practical mind under such a conflict of authority must necessarily be an appeal to experience; and this we believe is coming more within the reach of American practitioners, through the instrumentality of public benevolence in the establishment of special hospitals.

The actual necessity for special hospitals for the treatment of those suffering from bodily deformities has been so little felt, that it has been only within a comparatively short time that such institutions have been established in this country. Not only has an increasing interest been manifested during the past few years in the treatment of deformity already existing, but more attention has been directed towards the prevention and arrest of diseases which are generally followed by deformity. In London, besides the three great Orthopædic Hospitals, there are also special departments for this branch of surgery established in St. Bartholomew's and St. George's Hospitals.

It is well known that operative surgery is of but little avail, in many of the cases of deformity, unless in the

after-treatment we can have, in addition to the proper mechanical appliances, all such physiological adjuvants as may be obtained in the arrangements and exercises of a well-constructed gymnasium,—this combination being often indispensable to a complete restoration. It is easy to understand, therefore, how the deformed poor have but few opportunities for securing the full benefits of treatment, unless aided by special institutions.

An extended notice of the work before us is out of the question, but some of the leading practical points presented may be briefly considered. The history of club-foot and subcutaneous tenotomy is followed by a chapter on the reunion of tendons, with a comparison of the merits of tenotomy and mechanical extension in the treatment of these deformities.

Delpech, after dividing a tendon, allowed the parts to remain in undisturbed apposition, and resorted to extension only after union had taken place; while immediate extension was recommended by Syme. Mr. Adams, in referring to the great difference of opinion on this subject, states, very truly, that English surgeons generally adopt the practice of Delpech, Stromeyer, and Little; while in America immediate extension is generally practised. Some discourage immediate extension, fearing non-union of the divided cord; an accident which we have never observed. Mr. Adams reports only one example; which, however, resulted "from the division being performed immediately behind the inner malleolus,—a situation which orthopædic surgeons never select, but rather always avoid, for the performance of the operation." When tendons are divided on account of a recurrence of deformity, adhesions more or less dense are found; so that as a rule but little gain is effected by such divisions; while the free motion of the joint is materially lessened. "When recontraction of the foot takes place," says Mr. Adams, "and the deformity returns at a distant period after tenotomy, this does not depend upon absorption of the new material, but upon structural alterations taking place in the muscular tissue."

Chapter III. gives the relative merits of tenotomy and mechanical extension, and includes, also, the restoration of form and function; and "a judicious combination of the operative, mechanical, and physiological means" is insisted upon in the treatment of talipes.

The rules for determining when an operation for club-foot is required are given as follows:

1. "When the foot cannot be fully everted, or be brought to a straight line with the leg, by manipulation, and when in the attempt to accomplish this the inner malleolus does not become prominent."

2. "When the os calcis either cannot be depressed at all, or only to a slight degree, or when after the partial eversion of the foot little or no flexion of the ankle-joint can be obtained."

In the treatment of non-congenital spasmodic and paralytic talipes, we agree with Mr. Adams in the opinion "that great benefit may be derived from operative and mechanical treatment, followed by a long course of shampooing and special muscular exercises."

Infantile paralysis, our author believes, has a "marked tendency to spontaneous cure; in slight and moderately severe cases affecting single muscles or groups of associated muscles, complete recovery is the rule; when this fails, great improvement occurs, with very few exceptions." Such is not the clinical history of the cases we have been accustomed to observe. In some the power was regained in a very short time, but more frequently there is a more lingering paralysis, partial or complete. In the treatment of these cases tenotomy and mechanical means are required, especially in the consecutive deformities which so often arise, and which "are produced by adapted atrophy of certain muscles, principally the opponents of those which have suffered paralysis," and which do not result from any active contraction of these muscles.

There is no mention made of the treatment of these cases with electricity, which we believe to exert, in most instances, a marked beneficial influence.

In decided paralysis of the extensor muscles with talipes equinus (in which case the tendo-Achillis alone requires division), Mr. Adams cautions the operator not to use any extension until union has occurred, lest a pes calcaneus should result.

The history of talipes varus, including the congenital and non-congenital varieties and treatment, covers more than one-third of the volume, and is very complete.

In infants, when an operation is required, Mr. Adams directs that this should be done, if the child be in good health, about the second month; so that the cure may be completed before the commencement of dentition. In severe cases of varus, which is always more or less associated with a certain amount of equinus, the author, we are very glad to find, strongly insists upon the operative treatment being divided into two stages.

"The great practical point," he tells us, "is to overcome the inversion of the anterior portion of the foot, to convert the varus into equinus, and afterwards to divide the tendo-Achillis when only the equinus remains."

The attempt is very frequently made to restore a foot to its proper shape at once by force, after division of all the contracted tendons, including the tendo-Achillis. In such cases, however, more or less equinus remains; and if a second or third division of the tendo-Achillis be performed, little or no good is accomplished, and the foot is apt to be rendered much more rigid than before. Continual stretching and manipulation will generally in such cases accomplish more than any division of tendons or tissues.

When on the subject of relapse in cases of varus, we are told that "too much stress can scarcely be laid on the importance of careful attention to the after-treatment, especially as to the employment of mechanical supports acting as a retentive apparatus during the time required by the bone and ligaments to adapt themselves to the normal position of the foot, and also to the improvement of the muscular power by active and passive muscular exercise, shampooing, etc."

Various forms of mechanical appliances adapted by Mr. Adams and others to the different kinds of talipes are described and exhibited; some of them being only passable illustrations. We do not think these appliances compare in simplicity and convenience with the ordinary laced shoe, furnished with lateral screw movement for the foot, with flexion and extension such as have been perfected by the mechanicians of Philadelphia.

That there is considerable prejudice, not so much in the profession, as with the public generally, regarding the division of tendons, cannot be denied. This is in a degree but too well founded. A neglected or badly-treated club-foot, after tenotomy, is sure to produce a worse condition than the previous infirmity. We would be glad if we could never hear of cases of club-foot having been operated on and then immediately consigned, with a mechanical apparatus and a few simple instructions, to the care of friends, as if the cure were already accomplished.

Some of the worst results we have ever seen have been cases operated on where no after-care had been given to the patient. The stubborn facts of successful results are required to convince some that tenotomy is ever needed, and just such books as that of Mr. Adams, exhibiting the results of proper treatment, are invaluable in bringing about the needed change in feeling, while they are at least equally useful in extending

the knowledge of such treatment in a most practical manner.

A Nomenclature of Diseases, with the Reports of the Majority and of the Minority thereon. American Medical Association, Philadelphia, May, 1872.

This is a judicious revision of the names of diseases —a revision which the advance of science rendered imperative. The scientific names ought, perhaps, to have had precedence, as in botany and zoology, and as they are given in England.

Such names need not in all cases be based on pure Latin or Greek, but they may be Latinised or Greekised forms like the hybrids *scarlatina* and *potassa*, or translations like *febris flava*. Words which admit of it may be anglicised, such as *acute, chronic, osteoid, puerperal, abscess, congestion, hysterics, epilepsy*, and even *fever, dropsy, rickets*, and English words like *measles, glanders, plague*, may be used. Nevertheless, Latin forms should be preferred, as in No. 108, where "teething" should be *dentition* to correspond with *dentitio*, as "dentigerous cyst" (No. 79*c*) corresponds with *cystis dentigera*. For the same reason, in Nos. 59*d*, 67, 208, 226, 342-3, "fatty" (degeneration, etc.) should be *adipose*; "aneurysma ex vulnere" (No. 234) should be *an. traumaticum;* and where "coarctatio" is translated "narrowing" (228) and "contraction" (242), the latter should be preferred.

Binary names should be in the same language, yet we have the half-Greek half-Latin form "apoplexia pulmonalis" (291) beside the correct one "phthîsis pneumonica" (298); and in the English versions we find "pneumonic phthîsis" (298) and the hybrid "pulmonary apoplexy" (291), along with "abscess of the lung" (287) and "gangrene of the lung," where *pneumonic apoplexy, pulmonary abscess*, and *pneumonic gangrene* would have been better. In No. 21, "cretismus" should be *cretinismus*, to show the root. In 68*a*, for "eberneus" read "eburneus." In 64, 68, etc., *nucleate, cancellate, aculeate*, etc., are better than "nucleated," etc. "Keloid" (No. 75 and 501) refers to a tumor, and "cheloid" to a tortoise or to claws. No. 321 should be "anthracosis;" No. 520*f* omit "ricinus," as there are various species; and add "lectularius" to 520*h*. In 78*i*, "gelatinous" is better than "glutinosa," but both should give way respectively to "colloid" and "collodes," since hybrids (including forms like scrofulosis) should be avoided when possible. The "ptyalism" (87) of Arum triphyllum, etc., should not be overlooked. "Oidium," on p. 9, should be Oïdium (o-id-i-um).

Critics are beginning to drop the *h* of *rrh*, and the corresponding aspirate of the second *r* in the Greek originals of words like cirrhosis and scirrhus.

The English Magazine of Natural History and the Journal of the Boston Society of Natural History introduced accentuals to indicate the pronunciation,—a plan which, for obvious reasons, in this country, should be introduced into such lists. The usual mode is to indicate long accented syllables with the grave accentual (ˋ), and short ones with the acute (ˊ), as in neuròma, plethòra, prurìtus, entéric, oídium. There is a tendency to pronounce certain words with the î of *marine*, according to the Latin and Continental mode, of which impetîgo, scarlatîna, nephrîtis, and phthîsis are examples.

The two Reports agree essentially, inasmuch as the majority of the Committee present the result as provisional, while the minority desire sufficient delay to get the opinion of the profession upon it.

The above notice is based on the earlier matter of the Report, the rest not having been examined by the reviewer; but it is believed to be sufficient to give the reader an idea of the character of the changes which, to the writer's mind, will be necessary to produce a scientific nomenclature.

Clinical Lectures on Various Important Diseases: being a Collection of the Clinical Lectures delivered in the Medical Wards of Mercy Hospital, Chicago, by Nathan S. Davis, A.M., M.D., etc. Edited by Frank H. Davis, M.D. Small 8vo, pp. 262. Chicago, J. J. Spalding & Co., 1873.

These lectures have been from time to time published in the columns of the Chicago *Medical Examiner*. They belong to a class of literature which has great value, especially for the young practitioner and for those who have few opportunities of seeing collected cases. A very wide range of subjects is embraced,—continued fever, pulmonary tuberculosis, eruptive diseases, intestinal and uterine irritation, summer complaints of children, dropsy, brain and nervous affections, cutaneous diseases. For the most part, these topics seem to be handled in a practical and suggestive manner; but our author's physical science seems to us to be rather behind the age, as witness his remarks on "caloric," at p. 151.

We regret to note also that he has wrestled in vain with the art of prescription-writing,—English and Latin being freely mingled in almost every instance, in a manner offensive to the scholarly eye and unworthy of a professor.

OBITUARY.

Dr. R. Cresson Stiles, who died in West Chester, Pennsylvania, on the 17th ult., in the 43d year of his age, was a graduate of the Medical Department of the University of Pennsylvania, and had studied much abroad. He was, for several years, Professor of Physiology in the Berkshire Medical College, at Pittsfield, Massachusetts. During the war he served very acceptably as a Surgeon of Volunteers. Subsequently he resided for the most part in Brooklyn, and, we believe, was connected with the Long Island College.

Brevet Brigadier-General Madison Mills, Surgeon in the United States Army, died at his quarters at Governor's Island, New York, April 28. Surgeon Mills was a very meritorious officer. He entered the service, according to the date of his first commission, on the 16th of February, in the year 1847. He was promoted to the rank of lieutenant-colonel by brevet on the 29th of November, 1864, and advanced at intervals since to colonel by brevet and brigadier-general by brevet. His remains were interred from the chapel, Governor's Island.

"Colonel Jeff. C. Davis,

"Headquarters, Department of the Columbia, Portland, Oregon.

"At a meeting of the officers serving with the troops operating against the Modoc Indians, the following preamble and resolutions were unanimously adopted:

"*Whereas*, The Almighty has, in his pleasure, removed from among us our late companion and brother-officer, Assistant-Surgeon Thomas McMillin, United States Army, Medical Director of expedition operating against Modoc Indians, who was endeared to us by his uniform kindness, amiability, and many noble qualities, and, whereas, it has come lately to our belief, that while suffering from a disease contracted from exposure in the service, he has nobly and without hesitation performed all duty required of him, both in camp and in the field, and at last become its victim when in face of the enemy: therefore be it

"*Resolved*, That while we greatly deplore his early death, and look upon it as a great loss, not only to ourselves, but to the army at large, and the profession of

which he was a member, and to which he was an ornament, we entertain the hope that his gain is beyond our ability to express.

"*Resolved*, That we take this method to make known and extend our heart-felt sympathy to his family and relatives in their sad bereavement.

"*Resolved*, That a copy of these resolutions be sent to the relatives of our deceased comrade, the *Army and Navy Journal*, *Louisville Courier-Journal*, and *San Francisco Alta*, for publication.

"Ed. R. S. Canby,
"Brigadier-General, President.

"Arthur Cranston,
"First Lieutenant 4th Artillery, Secretary."

The above was received with the autograph signature of General Canby, who has himself, since it was mailed, entered into a personal experience of that which is to him also a "gain beyond our ability to express."

C. H. Crane,
Assistant-Surgeon-General, U.S.A.

Surgeon-General's Office,
Washington, D.C., April 28, 1873.

GLEANINGS FROM OUR EXCHANGES.

On Post-partum Dietetic Treatment. — Dr. Thomas Cairns, in an article published in the "Transactions of the Edinburgh Obstetrical Society," lays down three rules of diet, viz.:

1. "The diet should be nutritious in point of quality.
2. "It should be small in quantity and frequently repeated.
3. "It should be varied in kind and form."

He says of the usual low-diet system, "Such treatment, I humbly maintain, is utterly inconsistent with the principles of obstetrical pathology. I wish I had time to inform the younger members of the Society the real meaning of the term *labor*, because I am certain, if they knew what it actually expresses, they would at once perceive the necessity, on purely pathological grounds, of *feeding* and not *starving* their puerperal patients. . . . Consider the waste of tissue to which the woman is subjected during her confinement, and you must see that unless that waste be supplied by proper and fresh materials, the patient's strength must necessarily be very much reduced below its normal condition; and should any untoward event happen to her in these circumstances, the prognosis must essentially be infinitely more unfavorable than if her system had been duly sustained by generous diet. On these grounds I have always been in the custom of liberally administering to my puerperal patients the most nourishing food which their circumstances enable them to procure, such as soft-boiled eggs, beef-tea, soups, chops, steaks, tripe, etc., with a glass of wine daily in addition, or, if the patients prefer it, a glass of ale or porter; and this treatment, I humbly aver, is based on sound pathological principles. . . . Let the food be administered in small quantities at a time, and at such intervals as shall have insured the complete digestion of the previous diet. . . . Common sense seems to suggest that, with the view of stimulating the appetite and imparting to the patient a positive relish for food, every advantage should be taken of the culinary art in dressing the same article in different forms, and when these have been exhausted, that one article should be substituted for another during the whole period of convalescence."

On the Medicinal Use of Green Soap (*American Journal of Pharmacy*, May, 1873).—The editor, Mr. J. M. Maisch, says, "A short time ago, a correspondent asked us for a formula for tinctura saponis viridis composita, which he informed us was used in the Eastern cities. At first we were unsuccessful in our endeavors to comply with the wish of our correspondent, until Messrs. William McIntyre and Gustavus Krause furnished us with the following formulas, which we publish below for the benefit of our readers.

"Commercial soft or green soap is usually made now, wholly or in part, from common whale and other fish oil. Hempseed oil, or rather a mixture of it with various other liquid fats, has formerly been used, but long since substituted by almost any refuse oil which, on account of smell, rancidity, or color, is unfit for other uses. These oils are saponified with caustic potash, and the desired green color is imparted by blue, green, or yellow pigments, as may be required. Frequently, however, soft soap is met with of a blackish, or rather of such a dirty color that it is difficult to distinguish a particular tint. The soft soap of the London Pharmacopœia of 1851, and of the Edinburgh Pharmacopœia of 1841, was directed to be made from olive oil and potash.

"Green soap is mainly used in medicine for the cure of itch, and in various other skin-diseases, but, on account of its caustic nature, is not often applied.

"The following formulas have been furnished to us:

"*Lotio Saponis viridis* (Prof. Hebra).—Green soap ℥j, boiling water Oj, oil of lavender ℥ss. Mix.

"*Spiritus saponatus kalinus* (Prof. Hebra).—Green soap 2 parts, 95 per cent. alcohol, 1 part. Scent ad libitum.

"*Tinct. Saponis vir. cum pice* (Prof. Hebra).—Green soap, tar, alcohol, equal weights of each.

"*Tinct. Saponis vir. comp.* (Tilbury Fox).—Green soap, oil of cade, alcohol, āā ℥j, oil of lavender f℥iss. Mix."

Precautionary Measures in Amputations and Disarticulations (Petersen, of Kiel: *Berl. Klin. Wochensch.*, 1872, No. 31; quoted from *Centralblatt f. Med. Wiss.*, 1872, No. 39).—The author reports two cases of disarticulation of the hip-joint: the first of which, performed in a case of periostitis and osteomyelitis of the right femur, ended in death.

Four rules are laid down to be followed in these dangerous cases, and experience has taught the author that they are of great service:

1. A firm bandage must be applied to the limb about to be amputated or disarticulated, in order to empty it of its blood, and render the loss of blood as small as possible.
2. An anterior cutaneous flap is to be made, and the vessels should be ligated *en bloc* before the remaining soft parts are cut through.
3. The bone should be sawed through close below the trochanter, after the soft parts are cut, and the remainder of the bone is to be exarticulated by means of a lateral incision after the cessation of the hemorrhage.
4. If the patient has no fever, his blood may be caught and preserved for purposes of transfusion. In case of fever on the part of the patient, blood from another person should be instantly injected into the *vena cruralis*.

Curious Monstrosity.—Dr. T. O. Reynolds, of Kingston, New Hampshire, records, in *The Clinic* of April 19, a case of miscarriage at four months, in which there were two fœtuses expelled, one *in the mouth of the other, its head in the pharynx, its left arm protruding through the left nostril, and its legs hanging out.* There was but one placenta, connected with the larger fœtus.

Vermicular Action of the Urethra Inwards (*British Medical Journal*, March 1).—Dr. Macnamara, at a meeting of the Surgical Society of Ireland, said that for many years he had held (as, indeed, he had been taught) that foreign bodies lodged in the urethra had a tendency to be thrust forward. But, on inquiring more closely into the matter, he was led to believe in the existence of a vermicular action in the urethra, acting from without inwards on a body presenting a sufficiently large superficies. A calculus was thrust forward by the *vis a tergo* of the urinary stream, which overbalanced the vermicular action, as the latter had only a small surface whereon to act. But a catheter, when left in the urethra, had a tendency to pass towards the bladder, and to prevent it from doing so it was often necessary to apply a jugum. The object of this vermicular action was, clearly, to prevent leakage from the bladder. In the volume of the *Dublin Hospital Gazette* for 1858, Mr. Fleming had spoken of a sucking power, or vermicular action, of the urethra, in certain cases, but no mention was elsewhere made of this physiological property of the part. The president remarked that the number of cases where portions of catheter found their way into the bladder strongly confirmed Dr. Macnamara's interesting and novel remarks. Mr. Stapleton could not recognize the existence of any urethral vermicular action, and he believed that an entire catheter never yet had passed into the bladder. Dr. H. Kennedy referred to an example of this accident recorded by Mr. Stokes in the first number of the *Irish Hospital Gazette* (January 1, 1873).

A Test for Epilepsy.—Dr. C. B. Radcliffe, in a Croonian Lecture published in the *Lancet* for April 12, on cerebral exhaustion, mentions epileptiform symptoms as among its phenomena, and says:

"The immediate precursor of the perfect form of the paroxysm is a sign which is somewhat difficult to catch,—corpse-like paleness of the countenance. Delasiauve was the first to notice this phenomenon. Trousseau insists upon it as a mark which distinguishes true from feigned epilepsy. 'Il est une signe,' he says, 'qui se produit au moment de la chute, qui n'est imitable pour personne, c'est la pâleur très-prononcée cadavérique, qui couvre pour un instant la face épileptique. Nous ne la voyons pas, parceque nous arrivons toujours trop tard, alorsque la face est déjà d'une rouge très-prononcée.' And I can fully corroborate the correctness of these statements. In fact, the general form of the epileptic or epileptiform paroxysm, the *haut mal*, begins in the same way as the partial form, the *petit mal;* for it is allowed by all that cadaverous pallor of the countenance is the initial symptom in cases of *petit mal*. Moreover, I can testify to the existence of a corresponding pallor at the same time deep down in the eye, for on several occasions, while happening to be examining the eye with the ophthalmoscope when an attack of *petit mal* has come on, I have seen the pupil dilate and the vascular blush in the fundus become quite pale."

Local Employment of Chlorate of Potash in Cancerous Sores (*Lancet*, April 12).—In the *Berl. Klin. Wochenschrift*, No. 6, 1873, Dr. Burow, of Königsberg, advocates the local employment of chlorate of potash in the treatment of cancerous sores. His proceeding consists in sprinkling the sore with chlorate of potash in powder or crystals, and covering the whole with a wet compress. As the crystals of chlorate of potash exert a more powerful action than the powder, and excite greater pain, Dr. Burow uses the powder first, and replaces it by the crystals when sensibility has been abated. One of the cases was a cancerous sore of the left arm, which healed completely after eight weeks' treatment. Three other cases were cancerous sores of the breast; one was lost sight of, the other two are under treatment and healing well. The fifth case recorded was connected with a cancer which originated in the periosteum of the upper jaw and left cheek-bone, and then became ulcerated; in this case healing was complete in three months.

Miliary Tubercle in Cats.—The occurrence of miliary tubercle in the feline race has been described by Bollinger in *Virchow's Archiv* (vol. lv.). He found, in two female cats, that both lungs had scattered throughout their substance a large number of miliary and submiliary granulations; there was also lobular hepatization, but no cheesy transformation. In one of the animals the left kidney was the only other organ affected; in the other, both kidneys, the liver, and the pancreas contained miliary tubercles. Microscopic examination showed a complete identity between the tubercles found in the cat and those met with in man.

MISCELLANY.

We clip the following items from the daily press:

"Leucocythæmia.—Hon. James Brooks, now lying ill, is affected by symptoms of an obscure disease known as leucocythæmia, or a superabundant development of the white corpuscles of the blood over the red. This conclusion was arrived at after an examination of the patient by eminent physicians of Norfolk, Virginia, and New York. To test the matter thoroughly, specimens of blood were recently taken from various parts of Mr. Brooks's body, and submitted to Dr. J. J. Woodward, of the United States Army Medical Museum. This gentleman subjected the specimens to examination under a most powerful microscope, and reports that the blood is in a disorganized condition, there being an unusual proportion of the white corpuscles, but not in a sufficient quantity to justify the designation of decided leucocythæmia."

[Mr. Brooks died a few days after the above appeared, and a post-mortem examination disclosed extensive cancerous disease of the stomach.—Ed.]

"A most singular banquet has just taken place in Paris. M. Decroire invited several of his friends and a small company of scientific men to dine upon the flesh of horses which had died from the glanders; of cows the victims of the rinderpest; and of an ass just killed for hydrophobia. It was a 'test banquet,'—one that proved the devotion of each man there to science, in that he was willing to risk his life to demonstrate, in the most practical manner, that the flesh of animals is not affected as human food by even the worst diseases."

"A well drawn-up statistical table," says M. Michel Chevalier, "is like an impassive witness, alike above intimidation and seduction; which one can adduce and interrogate with confidence and profit, whenever light is needed upon the various aspects of civilization; for there is hardly one of these which does not manifest itself by tangible facts, and which therefore may not be placed more or less exactly in the legitimate circle of its bearings."

Unlawful Disposal of Infants.—*The British Medical Journal* says, "The Home Secretary has, we understand, directed a special inquiry into the circumstances connected with the late discovery at Bethnal Green of an attempt to bury the bodies of four infants in the coffin of an adult. Such outrages are, it must be feared, not uncommon, although they only occasionally come to light, owing to the absence of any power enabling the authorities at cemeteries to open coffins which they suspect to contain more than one body. Mr. Stansfeld promised the deputation of the Parliamentary Bills Committee of the British Medical Association, which waited on him on Saturday last, that he would attempt to devise clauses for the Registration of Births and Deaths Bill which would carry out a suggestion of Mr. Ernest Hart, and would check the facilities now enjoyed by sextons and undertakers for disposing of bodies of infants without certificate or formality, on the uncertified and unregistered allegation that they were still-born. Such clauses would be very useful, and they will be looked for with interest. No complete check will, however, be given to these practices by any other measure than one requiring the registration, for the purposes of burial, of all infants viable at birth, whether born alive or dead. The coroner for Central Middlesex, Dr. Lankester, writes to us, 'A few months ago, I held an inquest on three or four children found in the roof of a house. One was twelve months old, and another was four months old. These were children taken to an undertaker to be buried as still-born. He received the fees, and, instead of burying them, had stowed them away. There was a long inquiry, but no notice was taken of it by the press.' The test of viability adopted in the clause presented to Mr. Stansfeld by the joint deputation of the Obstetrical Society of London and the Parliamentary Committee of the British Medical Association was an arbitrary one, but one which has received the assent of practical authorities generally; and the adoption of such a clause would prevent a good deal of crime, carelessness, neglect, and outrage of propriety, by the careless disposal of infant bodies which now goes on."

Regeneration of the Eyes in the Crab.—M. Chautran, at a late meeting of the Academy of Sciences of Paris, read a paper stating the results of his interesting investigations upon the regeneration of the eyes of the crab, made in M. Coste's laboratory. If the eyes be excised in a crab of one year old, captured in August, just after moulting, they are completely restored, the new ones assuming the normal form and functions. If, however, the operation be performed in one taken in the month of May, before moulting, this process interferes with their due development, and they are regenerated of an irregular form and size. In adults the new organ is very imperfect.

The American Public Health Association closed its session, at Cincinnati, on May 3. It will meet again on the second Wednesday in September next, at Providence, R.I.

The following medical declaration concerning alcohol has been published in the *National Temperance Advocate*, over the signatures of Drs. E. Delafield, Willard Parker, Alonzo Clark, E. R. Peaslee, C. R. Agnew, Stephen Smith, A. C. Post, Elisha Harris, E. Eliot, Stephen Rogers, Andrew H. Smith, J. R. Leaming, and other New York physicians:

"In view of the alarming prevalence and ill effects of intemperance, with which none are so familiar as members of the medical profession, and which have called forth from eminent English physicians the voice of warning to the people of Great Britain concerning the use of alcoholic beverages, we, the undersigned members of the medical profession of New York and vicinity, unite in the declaration that we believe alcohol should be classed with other powerful drugs; that when prescribed medicinally it should be with conscientious caution and a sense of grave responsibility.

"We are of the opinion that the use of alcoholic liquors as a beverage is productive of a large amount of physical disease; that it entails diseased appetite upon offspring, and that it is the cause of a large percentage of the crime and pauperism of our cities and country.

"We would welcome any judicious and effective legislation — State and national — which should seek to confine the traffic in alcohol to the legitimate purposes of medical and other sciences, art, and mechanism."

Hired Nurses the Best.—Dr. S. Weir Mitchell, in a recent article in *Lippincott's Magazine*, says most truly, "What you want in the sick-room is a calm, steady discipline, existing but unfelt; the patient, cool control which a stranger is far more apt to exercise than a relative. In a word, just as a doctor feels it unwise to attend alone his own dear ones in grave illness, for like but lesser reasons, the best nurse is a stranger,—one who is naturally free from worry and irritation, who is unmoved by traditions of love, and who, acting purely and simply from sense of duty, takes that care of her own health which is essential to make her nursing perfect. Such an attendant is willing to take her share of sleep and fresh air, and so remain cool and tranquil under all circumstances and in all exigencies, making far more light the task of the doctor, and able from experience of illness to note changes and call for aid at needed times. Such help excludes from the sick-room that host of little annoyances for doctor and patient, which I may call fuss. Most doctors will agree with me that, save in cases of infants, where the mother cannot and should not be displaced, the best nursing is paid nursing, and the worst very often that which comes from the family."

The *Lancet* says that the New Sydenham Society has purchased the copyright of "Mayne's Medical Dictionary," and will shortly issue a new and greatly improved edition.

British Medical Association.—This body will meet this year in London, on the 6th of August.

The cranial cavity was measured by Morton in 623 instances, the heads being derived from many nations. The largest was that of a German, and measured 114 cubic inches. The smallest, that of an Australian, measured only 58 cubic inches. The cranial capacity of Daniel Webster amounted to 122 inches, and ranks among the largest ascertained; but Dr. T. G. Richardson, in his work on Anatomy, gives the measurement of the head of a German baker in the cabinet of the University of Louisville, the capacity of which was 125.77 cubic inches, thus exceeding by more than three inches the heads of Cuvier and Webster in size. It would be easy to multiply similar instances going to show how uncertain is the size of the head as an index of intellectual power.

A Madame Brès lately passed her first examination for the Doctorate of Medicine in Paris, and the Secretary of the Faculty appended the following particulars to her certificate: "Madame Brès, married, and the mother of two children, has not taken to the study of medicine as a pastime, nor from scientific vanity. She practises all the duties of the profession. During the two sieges which Paris has so lately borne, she never quitted the bedside of the wounded. The rain of honorary distinctions poured upon the ambulances passed by without falling upon her; the devotion natural to woman needing neither stimulus nor flattery."

We note the severe wounding of Acting Assistant-Surgeon Seimig (?) in the late massacre by the Modocs.

Weekly Return of Deaths and Interments in Philadelphia for the Week ending Saturday, May 3, 1873.

DISEASES.	*Adults.*	*Minors.*	DISEASES.	*Adults.*	*Minors.*
Abscess	2	...	Gangrene	1	...
Albuminuria	1	...	Heart Clot	1	...
Aneurism	1	...	Hemorrhage	1	...
Apoplexy	9	1	" from Lungs	1	...
Cancer	1	...	Hooping Cough	...	2
" of Pylorus	1	...	Inanition	...	8
" Uterus	4	...	Inflammation of Bladder	1	...
Casualties	1	3	" Brain	2	16
Cerebro-Spinal Meningitis	4	12	" Bronchi	2	4
Chlorosis	...	1	" Colon	...	1
Cholera Infantum	...	2	" Liver	1	...
Cirrhosis of Liver	4	...	" Lungs	14	9
Congestion	...	1	" Peritoneum	6	...
Congestion of Brain	3	3	" Stomach & Bowels	4	3
" Lungs	1	1	Intemperance	1	...
Consumption of Lungs	40	4	Jaundice	...	1
Convulsions	2	10	Leucocythæmia	2	...
Croup	...	2	Marasmus	...	16
Cyanosis	...	2	Measles	...	1
Debility	6	9	Neuralgia of the Heart	1	...
Diarrhœa	1	1	Obstruction of Bowels	1	...
Diphtheria	...	2	Old Age	12	...
Disease of Brain	1	1	Paralysis	5	...
" Heart	8	1	Pyæmia	1	...
" Kidneys	4	1	Rheumatism of Heart	...	1
" Lungs	1	...	Scrofula	...	1
" Spine	1	...	Smallpox	...	3
Dropsy	4	2	Softening of Brain	3	...
" of Brain	...	2	Still-Born	...	25
" Chest	1	...	Stricture of Rectum	1	...
" Liver	2	...	Suicide	2	...
Erysipelas	3	1	Tumors	1	...
Fever, Remittent	1	...	Ulceration of Bowels	1	...
" Scarlet	...	11	Unknown	...	1
" Typhoid	2	...			
" Typhus	2	...			
Totals				176	165

Meteorological Observations taken at the Signal Office, Philadelphia, during the Week ending Saturday, May 3, 1873.

Month and Day.	*Barometer. Daily Mean*	*Thermom. Daily Mean*	*State of Weather.*	*Rain. In.*
April.				
Sunday 27th	30.09	50	Fair.	.....
Monday 28th	30.10	53	Threat'ning, Cloudy.	.....
Tuesday 29th	30.00	49	Cloudy, Light Rain.	.10
Wednesday....30th	30.18	52	Fair.	.04
May.				
Thursday 1st	.....	.....	Cloudy, Light Rain.	.07
Friday 2d	29 68	52	Threat'ning, Cloudy.	.78
Saturday 3d	29.68	42	Cloudy, Light Rain.	.63
Means	29.96	50	.....	1.62

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM APRIL 29, 1873, TO MAY 5, 1873, INCLUSIVE.

Smith, A. K., Surgeon.—When relieved by Assistant-Surgeon Lippincott, to comply with orders from War Department. S. O. 86, c. s., Department of the South.

Peters, De Witt C., Surgeon.—Granted leave of absence for thirty days. S. O. 65, Department of the Gulf, April 26, 1873.

Gray, C. C., Surgeon.—When relieved by Assistant-Surgeon Matthews, to comply with orders received from War Department. S. O. 80, Department of the East, April 29, 1873.

Fryer, B. E., Surgeon.—When relieved by Assistant-Surgeon Moffatt, to comply with orders from War Department. S. O. 65, Department of the Missouri, April 30, 1873.

Weeds, J. F., Surgeon.—When relieved by Assistant-Surgeon Caldwell, to comply with orders from War Department. S. O. 86, c. s., Department of the South.

Happersett, J. C. G., Assistant-Surgeon.—Relieved from duty at Fort Garland, C. T., and assigned to duty at Fort Lyon, C. T. S. O. 63, Department of the Missouri, April 26, 1873.

Woodhull, Alfred A., Assistant-Surgeon.—Relieved from duty at Fort Lyon, C.T., and to comply with S. O. 82, c. s., War Department. S. O. 63, c. s., Department of the Missouri.

Brewer, J. W., Assistant-Surgeon.—Relieved from duty at Camp Supply, I.T., and to comply with S. O. 82, c. s., War Department. S. O. 63, c. s., Department of the Missouri.

Gardner, W. H., Assistant-Surgeon.—Relieved from duty at Fort Hays, and assigned to duty at Camp Supply, I.T. S. O. 63, c. s.. Department of the Missouri.

Caldwell, D. G., Assistant-Surgeon.—Assigned to duty at Nashville, Tennessee. S. O. 86, Department of the South, May 2, 1873.

Lippincott, H., Assistant-Surgeon.—Assigned to duty at McPherson Barracks, Atlanta, Georgia. S. O. 86, c. s., Department of the South.

Meacham, Frank, Assistant-Surgeon.—Relieved from duty in Department of the Platte, to proceed to Boston, Massachusetts, and on arrival there report by letter to the Surgeon-General. S. O. 87, A. G. O., April 26, 1873.

Moffatt, P., Assistant-Surgeon.—Assigned to temporary duty at Fort Union, N. M. S. O. 65, c. s., Department of the Missouri.

King, J. H. T., Assistant-Surgeon.—Relieved from duty in Department of the Platte, and to report in person to the Commanding General Department of the Lakes, for assignment. S. O. 87, c. s., A. G. O.

Matthews, W. Assistant-Surgeon.—Assigned to temporary duty as Post Surgeon at Fort Wood, New York Harbor. S. O. 80, c. s., Department of the East.

Mackin, Jr., Chas., Assistant-Surgeon.—His resignation accepted by the President, to take effect April 29, 1873. S. O. 89, War Department, April 30, 1873.

BOOKS AND PAMPHLETS RECEIVED.

Medical Education: what it is, and what it might be made. An Address before the Society of the Alumni of the Medical Department of the University of Pennsylvania, at its Annual Meeting, March 12, 1873. By Alfred Stillé, M.D. 8vo, pp. 34. Published by the Society.

On Ovariotomy. By J. Marion Sims, M.D., one of the Surgeons to the New York State Woman's Hospital, etc., etc. (Reprinted from the *N. Y. Medical Journal*, December, 1872, and April, 1873.) 8vo, pp. 85. New York, D. Appleton & Co., 1873.

SATURDAY, MAY 17, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON PELVIC NECROSIS.

BY H. ALLEN, M.D.,
Surgeon to the Philadelphia Hospital.

GENTLEMEN: I propose to-day to speak of some of the conditions arising from disease of the bones of the pelvis. As you are aware, the pelvis is protected at its sides by the gluteal masses of muscles, whose outlines are continuous with those of the adductor and flexor muscles of the thighs. This arrangement essentially excludes examination of the sides and inferior margins of the pelvis during life, while the state of the interior can be only approximately estimated by the inspection of the outlet of the pelvic organs. Occasionally much light can be gained by the last-named procedure: this failing, we are in the dark. Let us suppose that a case of chronic disease of the pelvic bones, attended with suppuration and the formation of fistulæ, is presented. We are able, we will suppose, to eliminate all diseases of the pelvic viscera, may exclude coxalgia, and yet we may be uncertain as to the exact nature of the trouble. Of the two examples which will be narrated to-day, you will perceive that the observer might well be excused for hesitating in forming positive opinions about the conditions actually existing, and for leaning to conservative methods of treatment.

Case I.—H. McC., male, colored, aged 33, laborer, was admitted to the Philadelphia Hospital, November 17, 1870, with what was believed to be venereal disease. He was received into the Men's Venereal Ward. The right groin was the seat of sinuses; the testicles were swollen. No history of his condition prior to admission was at all satisfactory. He came under the notice of the writer October, 1871. His state at this time was as follows: He was bedridden and much emaciated; the right groin presented the appearance of chronic virulent bubo; the glands were enlarged and painful, and undermined here and there with pus, which had found vent through several fistulous orifices. One of these tracts permitted the introduction of a curved probe downwards and inwards beneath the great vessels. Several cicatrices, the results of opening old sinuses, marked the region. The right half of the scrotum exhibited an opening of a purulent tract. This was situated a little to the left of the femoro-scrotal fold; both testicles were somewhat enlarged; no fistulæ were found in the left groin; the lymphatic glands were not enlarged. When the patient was directed to lie upon his face, an indurated patch of tissue was traceable from the flexor aspect of the thigh at its lower third to the ischio-rectal fossa; a probe passed along the sinus, corresponding to the tract, met with no resistance. The decubitus was upon the right side, with the legs flexed. The discharge was fetid and profuse, necessitating frequent renewals of the dressings. The man was listless, appeared to suffer no pain, slept fairly, and had a moderate appetite. He was fond of lying with his head enveloped in the covering of the bed.

It was deemed advisable to preserve perfect rest of the sinuses; and to this end the limb was extended, and a straight splint was applied to the outer side. The discharge, however, continued as profuse as ever, and after a trial of several weeks this was abandoned. It was now strongly suspected that the trouble was not of venereal origin; and in November a careful examination of the sinuses was made, the patient being under the influence of ether. It resulted in finding within the large posterior sinus a piece of bone, about the size and shape of half a chestnut. This discovery threw a flood of light upon the case, and the patient was thereupon transferred to the surgical ward. The limb was kept at rest in the extended position, and after a rest of a week the sinuses were again explored, and several small fragments removed. It was noticeable, however, that, notwithstanding the withdrawal of these offending masses, the amount of the discharge did not materially lessen. February 21, a third examination was made, with a view of determining whether some portions of bone might not be lodged deep within the parts, and so situated as to have escaped previous examination. This was, indeed, the case, for lying apparently within the thyroid foramen were felt a number of roughened fragments, which had not, therefore, entered the sinuses, although doubtless instrumental in maintaining them. The fragments were removed. But it soon became evident that the condition of the patient had not been dependent, in the late stage of the disease in which he had come under observation, upon a merely local cause. He complained of wandering abdominal pains. Hectic set in, with its accompanying symptoms; he gradually sank, and died May 25. At the post-mortem examination, it was found that the innominate bones were disjointed at the symphysis pubis, and the soft parts destroyed. The abdomen was the seat of chronic peritonitis; the folds of the small intestines were agglutinated; six ounces of pus was found in the peritoneal cavity; the muscles about the pelvis were consolidated by inflammation; the bones when macerated exhibited loss of tissue along the left pubic bone and ischium to the posterior and median borders; the right pubic bone was much excavated upon the anterior surface; conspicuous osteophytes were seen upon the ascending ramus of the ischium, as well as along the horizontal rami of both pubic bones; the other organs revealed no organic change; no evidences of syphilis were detected.

It will be seen that the above case resembled, in some particulars, a case of virulent bubo. The sinuses in the groin, associated with engorged lymphatic glands, recalled a condition which, as you know, is a common one in our wards. The quantity of matter which daily escaped was much greater than is seen in an ordinary peri-adenitic bubo; nor was the pus of the same quality. We have not seen in this clinic, among the numerous examples of pus-yielding inguinal fistulæ which we have studied together, any instance of fetid pus. Here, however, and, as a rule, in all examples of pus dependent upon disease of bone, fetor is a prominent characteristic. With respect to the position of the sinuses, we do not expect inguinal fistulæ which are due to glandular irritation to be associated with sinuses upon the back of the thigh and the perineum. The presence of symmetrically-enlarged testicles suggested syphilitic infection. But upon this point there was no evidence, and the presence of pus on the right side of the scrotum would account for the secondary engorgement of the testicle of that side.

It is apparent, moreover, that the diagnosis of venereal disease would have been untenable after thorough exploration of the sinuses. Fistulæ, following necrosis of the pelvic bones, when situated in the perineum, have been mistaken for fistulæ in ano, and the grave error has been committed of operating as for that disease.

The case before us is illustrative of the great local change which may follow upon exfoliation of the pubic and ischiatic bones. The ascending ramus of the ischium and the descending ramus of the pubic bone were involved, and the exfoliations had been separated both from the anterior and the posterior surfaces. In the great majority of cases of pelvic exfoliation, it is found that the parts which are most intimately connected with the adductor and flexor muscles of the limb are those which suffer. This localization is not without interest. The origin of many cases of pelvic necrosis can be traced directly to unusual tension of these powerful muscles, as in the acts of running, dragging nets, lifting heavy weights, etc., and the moment of reception of the injury and its exact locality be accurately determined by a sharp twinge of pain. In the absence of an account of such pain, the fact of indirect injury must remain unproved. Another important point to remember in the history of the case is the abscess which commonly ushers in non-specific necrosis. In our own case it has been seen that no history worth considering was elicited, and we were entirely dependent upon the fortuitous detection of an exfoliated portion of bone.

Case II.—A. W., female, aged 44, widow, admitted to the Philadelphia Hospital January 1, 1873. For three months she had complained of pain in the right iliac region. This was never severe, though subject to exacerbations. About a month prior to her admission a minute pustule formed in the iliac region, about the inner third of the ilio-pubic space, and half an inch above Poupart's ligament, which, discharging its contents, was converted into a fistula. At times an ill-defined swelling would occupy the entire iliac region, and become sensitive to pressure. At intervals of about two weeks, and with tolerable regularity, this collection would discharge itself, giving great relief to the patient, and followed by subsidence of the iliac tumor, with apparent improvement in the general condition. After one of these periodical evacuations the patient's appetite would increase, her manner become more animated, and she would pass from a condition of depression and melancholy to one of comparative content and hopefulness. The vomiting which almost invariably preceded these discharges would stop at the same time, and on several occasions diarrhœa, which had persisted obstinately for several days, and had even threatened the patient's life, would also stop spontaneously. According to the accounts of the nurses and of the woman herself, the amount of pus discharged at these times varied from half a pint to a pint. With the exception of these occasional periods of relief, there was a steady deterioration of the general condition, with marked anæmia and emaciation. The case was first looked upon as one of iliac abscess, dependent upon a transmitted irritation from the cœcum. This, as is well known, is an occasional sequence of typhlitis. The previous history was so obscure that the probability of suppuration existing beneath the peritoneum upon the bed of the internal iliac muscle was continually presenting itself to us. This opinion we were compelled to modify when the periodical discharges became so noticeable a feature. The quantity of pus was altogether disproportionate to the alleged cause. It was now thought that the case might be one of necrosis of the pelvic bones, and possibly one in which a fragment of bone was lying within the pelvis and exciting the formation of pus. The patient was placed under the influence of ether, and the opening explored. The probe could be passed upward along the tract for the distance of about two inches, and downward towards Poupart's ligament. No dead bone was anywhere detected, and the nature of the case remained as doubtful as before. Fearful of complication with the cœcum, we did not feel authorized to open the tract. In our opinion, no good could possibly have followed an incision through the parietes, when there was no surety of the condition of parts beyond. The patient died April 12, 1873. At the autopsy, which was made thirty-six hours after death, the abdomen was opened by the usual crucial incision. The intestine was found to be free from adhesions, excepting the last four inches of the ileum, which were fixed by old bands of lymph to the wall of the true pelvis. The cœcum and sigmoid flexure were normal. About an ounce of healthy pus was found in the cavity of the pelvis. There was nowhere any evidence of peritonitis. The opening in the wall of the abdomen was made at the position of the fistulous orifice. A probe could be passed downward along the tract to just above Poupart's ligament, whence it passed beneath the peritoneum along the brim of the true pelvis to communicate with a large cavity lying upon the venter of the ilium. The tissues were greatly infiltrated, and the periosteum destroyed. The bone was found discolored and much roughened. No exfoliations were found. The collection had passed down within the true pelvis for a short distance, but here was not in contact with bone. The sacrum was, however, denuded at the central portion of its middle third. No pus was found along this tract; it had doubtless been recently evacuated through the opening in the abdominal walls. A second collection, however, to the left of the sacrum, was seen in position. This extended along the sheath of the psoas muscle, and contained about eight ounces of pus. It had not apparently communicated with the larger tract, nor was it at any point in contact with bone. The pelvic organs were healthy. No lesions found in other viscera.*

In both of the above cases disease of bone can with propriety be assigned as a cause of the obscure and complicated lesions. In the first, multiple fistulæ associated with exfoliation of bone from the region of the pubic and ischiatic bones; in the second, a single fistula due to deep-seated suppuration about a necrosed surface of the innominate bone, and secondarily, we may surmise, the anterior surface of the sacrum. In both the direct causes were obscure: over-excitation of the parts involved, by powerful muscles operating within a small area, explains, it is thought, the first, but not the second, where muscular traction is not known to induce such results. The chief interest attending the disease is the difficulty of making a diagnosis; for the *treatment* of pelvic necrosis is in no wise different from that of the same disease in other portions of the skeleton. Occasionally when fragments of bone are deeply placed *within* the pelvis, great discretion must be exercised in removing them. If perito-

* The writer is indebted to Drs. J. W. White and J. B. Walker for the notes of this case.

neal irritation be already excited, as was found in Case I., it is unnecessary to dwell upon the dangers arising from an exploratory operation to remove fragments which lie within the foci of greatest danger to the serous lining of the abdomen. In order to remove hidden portions of exfoliated bone which do not lie in positions accessible to instruments inserted along the sinuses, the surgeon may be compelled to make an incision remotely placed to the orifice of the fistula. In a case recorded by Syme in his "Clinical Observations," he was obliged to divide the integuments for the distance of three inches along, and a little above, the crest of the ilium, to extract an exfoliation which was found lying in the iliac fossa. In Case II. it is evident that little if anything could have been accomplished by such an incision, and we believe our patient's life was prolonged by the conservative policy we pursued.

ORIGINAL COMMUNICATIONS.

REPORT OF A CASE OF COMPOUND COMMINUTED FRACTURE OF THE SKULL WITH EXTENSIVE LOSS OF BONY TISSUE, WITH RECOVERY; AND OF A CASE OF AMPUTATION OF BOTH LEGS FOR FROST-BITE, DEATH OCCURRING ON THE TWENTY-FIRST DAY.

BY J. FRAZER BOUGHTER, M.D., U.S.A.,

Fort A. Lincoln, Dakota Territory.

PRIVATE JOHN O'H., Sixth U. S. Infantry, æt. 37, while engaged in cutting logs in the timber near the post, on the 26th of September, 1872, was struck on the left side of the head and on the left forearm by a large cottonwood-tree falling upon him.

The accident occurred about 9 A.M.; he was brought to the post and admitted to the hospital (field*) at 12 M.

The patient was suffering from concussion of the brain, and was in a state of profound insensibility.

Examination revealed a very extensive compound comminuted fracture of the left parietal bone, and a simple fracture of the left forearm (both bones) at the upper third, that of the ulna being very oblique. One large fragment of bone (nearly two square inches of surface) was almost entirely detached, held only by its attachment to the temporal muscle. At first sight the contused and lacerated muscle was supposed to be oozing brain-substance, discolored by dirt and blood. Washing the parts disclosed its true nature.

This fragment had been entirely detached from the dura mater, apparently without injuring it in the least, —*peeled* off, so to speak.

In addition, several smaller fragments of bone were removed.

Three lines of fracture, each several inches in length, radiated off from the triangular space left vacant by the removal of this fragment of bone,—one anteriorly towards the coronal, the second superiorly towards the sagittal, and the third posteriorly towards the lambdoidal suture.

The scalp was lacerated and torn in various directions.

Having ascertained that no depression of bone existed, the dirt and blood were carefully washed away, the rough and projecting edges of bone removed, the scalp shaved, the lacerated edges brought together by sutures and ichthyocolla plaster; the large portion of the temporal muscle, which at first it would have seemed better to remove, was laid over in its place and covered with portion of the scalp.

The fracture of the forearm was dressed with splints.

Carbolic acid solution (℞ Acid. carbolic., ʒij; aquæ, ℥xij. M.) used to constantly saturate the lint laid over the wound; cold applications directed to be kept constantly applied to the head (no ice being attainable, cold spring-water used).

Unable to swallow any fluids.

September 27.—Still suffering from concussion; no change in the wound; able to swallow a little beef-essence and milk.

September 28.—No change; still insensible; continues to take beef-essence and milk.

September 29.—Patient has spoken for the first time since his injury; treatment continued.

September 30.—Still about the same; ordered ℞ Olei ricini ℥j at 9 A.M.

October 1.—Bowels moved yesterday P.M.; consciousness slowly returning; he is rational at times, and responds when spoken to; ordered milk-punch; tea and bread allowed; treatment continued.

October 2.—Although seven days have elapsed since the patient was injured, there is an entire absence of any symptom of inflammation of the brain or its membranes. The parts are in a remarkably healthy condition.

To-day a demonstration was made against the post by the Sioux Indians, and very brisk firing maintained for some time. The dead and wounded scouts (Indians) were brought into the hospital, and, notwithstanding all the unavoidable excitement at such a time, the patient, who knew what was occurring, did not suffer from any excitement, which was very much feared.

October 3–4.—Takes nourishment well. The scalp becoming swollen and œdematous over the line of fracture extending towards the sagittal suture, an incision was made several inches in length, with a free escape of healthy pus, one vessel divided requiring ligation; parts brought together with adhesive plaster, sutures making too much tension.

October 5.—Doing well this morning; speaks distinctly; a number of purpuric spots have appeared over the body.

October 6.—Improving; purpuric spots increasing.

October 7.—Applied compress and bandage to head; readjusted splints to forearm; it is extremely difficult to keep them applied, as the patient is very restless. Treatment continued.

October 8–14.—Improving; bowels now act daily; milk-punch stopped the 14th inst. Full diet allowed.

October 15–19.—Improving; parts are healing rapidly; has no pain whatever; stopped beef-essence the 19th instant.

October 20–26.—Still improving; the splints were removed this A.M. (26th inst.); the bones of the forearm show no tendency whatever to union; readjusted.

October 27–31.—Patient still gaining; treatment steadily continued.

November 1.—Moved from the tent into a room in the hospital building (still unfinished).

November 2.—Wounds of scalp healing rapidly. The carbolic acid lotion was changed to the carbolated ointment of the oxide of zinc, and earth-dressing applied to several granulations (the earth has a marked and rapid influence in removing unhealthy and profuse granulations).

November 3.—The earth-dressing has lessened the size of the granulations. Patient allowed to sit up for the first time.

November 4.—Removed splints again; the radius has

* By this are meant hospital tents.

united with some little deformity; no union of the ends of the ulna has taken place, nor is there any evidence of the deposition of callus.

November 5.—Ordered ℞ Tinct. ferri chloridi, gtt. x, three times daily.

November 6–16.—Improving rapidly; sits up every day. Removed a very small fragment of exfoliated bone from the wound of scalp this A.M. (16th instant).

November 17–22.—Allowed exercise in the open air to-day (22d instant).

December 2.—Removed a very small fragment of exfoliated bone.

December 26.—Removed and stopped all dressings to head, finding it entirely healed; the scalp has united and cicatrized over the large space left vacant by the loss of bone in a very perfect manner, adhesions having formed with the exposed portion of the dura mater.

February 20.—Removed splints from the forearm; no union of ulna; frictions, rubbing the ends of the fragments together, and everything save an operation, has been tried, but without any success. As the radius has united, as flexion and extension are perfect, and supination and pronation almost so, and, further, as the man has a very good and serviceable arm (though with some deformity), it is not deemed advisable, in consequence of the injury to his head, to attempt an operation for ununited fracture, which might not be a success.

This man has been recommended for a discharge from the U. S. service.

AMPUTATION OF BOTH LEGS FOR FROST-BITE, DEATH OCCURRING ON THE TWENTY-FIRST DAY.

Charles P., æt. 21, a citizen, engaged in wood-chopping above the post, was admitted to the post-hospital, with both his feet badly frozen, on the 23d of March, 1873.

On the afternoon of the 22d instant, with a companion, he started on a hastily constructed raft from his log cabin, which had been surrounded by water by the overflow of the Missouri and Heart Rivers. Towards evening the temperature *fell rapidly*. They pushed their way through the ice till 8 P.M., when they abandoned the raft, and started on hands and knees, crawling over the thin ice; the patient broke through, his clothing becoming thoroughly wetted; he lay all night on the ice, his feet *freezing solid* (in the morning the thermometer at the post recorded 0° (zero) Fahrenheit); the ice being firm enough to enable them to reach the shore, they walked to the post, a distance of four miles, arriving here at 6.30 A.M.

Saw patient at 7.30 A.M., March 23; found him much exhausted, *with his boots on*, and his feet in a tub of cold water, in a room in a log cabin without fire; had boots carefully cut off; found the right foot frozen stiff and solid to the ankle-joint; the left as far as the lower third of leg, the ankle-joint of this leg being immovable, the foot being somewhat everted, resembling talipes valgus.

Ordered his feet to be constantly rubbed with snow and ice-water; no fire to be made; dry clothes put on; whisky and some food administered.

After friction had been continued as above for eight hours, the parts became soft and natural, *but no warmth returned*. The ankle-joint of the left foot now permitted of some movement.

Patient now (4 P.M.) admitted to hospital. Dry frictions with red flannel continued for some time; the frozen parts painted with tinct. iodin. comp., and both feet and legs enveloped as high as the knee in cotton batting. Tea, toast, and milk allowed.

℞ Morph. sulph., gr. ¼, give at 8 P.M., and repeat in two hours if necessary.

March 24.—Slept some last night; has no pain; sensation in the feet not entirely destroyed.

10 A.M., pulse 72, temperature 99°; 8.30 P.M., pulse 90, temperature 100°. Tinct. iodin. comp. continued.

March 25.—10 A.M., pulse 80; temperature 100°. 8.30 P.M., pulse 88; temperature 100.5°.

March 26.—10 A.M., pulse 84; temperature 100.5°. 8.30 P.M., pulse 86; temperature 100.5°.

March 27.—10 A.M., pulse 78; temperature 99.5°. 8.30 P.M., pulse 92; temperature 101.5°.

March 28.—10 A.M., pulse 74; temperature 99.5°. 8.30 P.M., pulse 76; temperature 100°.

March 29.—10 A.M., pulse 94, temperature 104.5°. 8.30 P.M., pulse 125; temperature 106°.

The patient is very restless; has a very high fever; had a severe chill during the morning, and vomiting. Beef-essence ordered to be taken freely.

March 30 (The clinical thermometer was accidentally broken after taking the temperature last evening).—The feet still remain cold, becoming discolored. Can feel pinching of the toes very slightly. A faint line of demarcation is declaring itself.

10 A.M., pulse 88. 8.30 P.M., pulse 100.

March 31.—Had a very severe chill at 10 A.M. Ordered ℞ Quiniæ sulph., gr. v, spirit. frumenti, ℥j. M., at once.

11 A.M., pulse 112. Ordered ℞ Tinct. ferri chloridi, ℥ij, quiniæ sulph., gr. xxiv, aquæ, ℥xij. M. Sig., a tablespoonful three times daily, before meals. Sherry wine, ℥ij, three times daily. Continue beef-essence, milk, and toast.

The line of demarcation is becoming more evident; it is feared he will lose both his feet. 8.30 P.M., pulse 104.

April 1.—Evidence of the invasion of gangrene; the feet are becoming shrivelled and dry; a bad odor is perceptible this morning during the dressing.

10 A.M., pulse 103. 8.30 P.M., pulse 90.

March 2.—The line of demarcation is now almost established for the right foot, the parts below becoming very dark.

10 A.M., pulse 98 (very weak). Milk-punch substituted for the sherry wine, to be taken every hour. Says he cannot take the beef-essence any more, as it makes him sick.

The "earth-dressing" was applied to both feet this morning (for its deodorizing property).

8 P.M., pulse 100. Says the dressing of this morning feels better than anything he has had applied yet. *Not the slightest odor perceptible this evening.*

April 3.—Earth-dressing renewed this morning; slept well last night, and had much less pain than usual in his feet. Pulse, 8 A.M., 96. 8 P.M., 80.

April 4.—Doing well. Slept well, after taking morph. sulph., gr. ¾, last night. 10 A.M., pulse 104.

Renewed dressing at 6 P. M. Complains of sick stomach. 8.30 P.M., pulse 104; temperature 102.5° (obtained a clinical thermometer this afternoon). Ordered morph. sulph., gr. ¼, every hour till he sleeps.

April 5.—10 A.M., pulse 114; temperature 103°. Amputated right leg at lower third, and as far down as healthy tissue could be found, by the circular method. Ether used at first, but, as it did not produce complete nor rapid anæsthesia, chloroform was substituted. Lost but little blood during operation; tourniquet applied to the popliteal artery; four vessels ligated. At 2 P.M. patient removed to his bed. Pulse 120; temperature 102.5°. As the inflammatory condition of the left leg did not admit, and moreover the danger of the shock in his present condition, it was necessary to defer amputating it, although it had been intended to make a synchronous amputation.

Carbolic acid lotion applied to stump. After operation, gave morph. sulph., gr. ½ (2 P.M.); repeated at 6 P.M. and 8 P.M., the man not having slept any.

8 P.M., pulse 132; temperature 104°. Patient is very weak.

April 6.—All the morphia the patient had administered to him last evening failed to produce any sleep.

10 A.M., pulse 120; temperature 102°.

For breakfast this morning, had two eggs. Ordered ℞ Hydrate chloral, gr. xv, at 10.30 A.M., and repeat in one hour, if necessary.

8 P.M.—The chloral produced no sleep. Bowels moved to-day. Pulse 116; temperature 103°. Ordered morph. sulph., gr ½, at 9 P.M., and repeat if necessary. Continue beef-essence, chicken broth, milk-punch, and milk.

April 7.—Slept a little last night. Doing well this morning. 10 A.M., pulse 108; temperature 99.5°. The stump looking swollen, loosened most of the adhesive straps to permit of free drainage.

9 P.M., pulse 120; temperature 104.5°. Very restless; face flushed; complains of pain in left thigh and groin.

April 8.—No sleep last night, notwithstanding he had taken large doses of chloral. Pulse at 10 A.M. 104; temperature 99.5°. Stump looking well; had it dressed as well as the left leg, and patient moved into a clean bed. The line of demarcation well defined in the left leg; earth-dressing still continued.

9 P.M.—Since 6 P.M. has been very restless. Pulse 136; temperature 105.2°. Complains of severe pain in both legs. ℞ Olei ricini, ℥j, at 9 P.M.; morph. sulph. during night.

April 9.—Last night the patient had gr. 1¾ of morphia, producing but little sleep. Oil operated. Very weak and exhausted. Pulse 140; temperature 104.5°.

9 P.M.—Complains of severe muscular spasm in both legs. Pulse 134; temperature 101.5°; respirations 20.

April 10.—Did not rest any last night, although he had gr. ijss of morphia. The edges of the skin of right stump are sloughing. Pulse 136; temperature 101.5°. Taking beef-essence and milk-punch every hour.

9 P.M., pulse 140, temperature 102.5°. Vomited during the evening. Pulv. opii, gr. ij, ordered, as the morphia has failed to produce sleep. Brandy and water substituted for the milk-punch, as the latter disagrees.

April 11.—Very weak this morning. Pulse 140; temperature 102.5°. Severe vomiting at 10 A.M. The right stump sloughing extensively; ordered a chlorinated poultice to stump. The left leg much swollen above the line of demarcation.

As the patient is becoming weaker, and as every effort to strengthen him has had no effect, notwithstanding his very unfavorable condition, it was decided to amputate the left leg, though with many misgivings as to the result. Accordingly, at 3 P.M. chloroform was administered and the amputation performed at the junction of middle and upper third, by the flap method. Very little hemorrhage. Six vessels ligated; tourniquet applied to the popliteal artery. Came out of the operation well, but very weak; gave ℞ Quiniæ sulph., gr. x, morph. sulph., gr. ½, spirit. vini gallici, ℥j. M.

9 P.M., pulse 150; temperature 104°. Continue beef-essence and brandy, freely.

April 12.—Slept three hours last night. 10 A.M., pulse 126; temperature 98.2°. Right stump improving; continue poultice. Left stump looking well; continue carbolic acid lotion and ice-water, freely. 9 P.M., pulse 144; temperature 100°. Very weak; has been perspiring profusely since 3 P.M.; his hands are very cold. To take brandy and beef-essence (if possible) every fifteen minutes, and ℞ Ammoniæ carb., gr. v, every two hours.

April 13.—Slept but little; constant low muttering delirium during night. Stumps looking well; poultice continued to right, and the carbolic acid lotion to left. As the bed was much soiled, it was changed this morning. 9.30 A.M., pulse 144; temperature 101.5°.

9 P.M.—Patient to-day has been very low. Temperature 102.5°; pulse 144–150. Delirium constant.

Patient died at 12.15 A.M.; at 12 o'clock had taken beef-essence and brandy.

The terrible exposure and suffering this man experienced on the night of the 22d of March was enough, almost, to cause death; and indeed it is a wonder he did not perish outright.

His condition on the 11th of April, when the left leg was amputated (pulse 150, temperature 104°), was most unfavorable for an operation; although the line of demarcation was well declared on the 8th of April, the operation was deferred till the 11th, being kept on beef-essence, milk, and brandy, in hopes that his strength would increase. Death was the result of exhaustion and passive congestion of the lungs.

The value of the earth-dressing was markedly shown in this case.

Examination of both stumps after death showed them to be in an unhealthy condition.

TWO CASES OF GANGRENOUS ERYSIPELAS OF THE GENITALS.

BY ISAAC OTT, M.D.

THESE cases were observed in the practice of Dr. C. C. Field. The notes in the major part were furnished by Dr. Sine.

Case I.—Mr. H., Bavarian, æt. 66; nervo-sanguine temperament; muddy skin; emaciated; farmer; residence in a damp location; father died at 40, of hemorrhoids; mother at 80, of disease not known; his previous health good, except that, during this winter, his appetite was diminished; all viscera normal.

April 13.—Patient perceived, on lower side of prepuce, near the margin, a small red spot, which was attended with slight pain and warmth; at 9 P.M. was seized with chills, lasting a half-hour, alternating with flashes of heat; burning pain in prepuce.

April 15.—Præputial inflammation had extended within an inch of the pubes, here ending abruptly, but extending over anterior surface of scrotum; testes one-third larger than normal, and very sensitive to the touch; dorsal surface of penis covered with a large vesicle; penis swollen and club-shaped; pulse 80; respiration 20.

April 16.—Penis purplish-black; patient very sensitive to cold; tongue more furred; pulse 85; respiration 22.

April 17.—Aggravation of all the previous symptoms.

April 18.—Testes enormously enlarged; scrotum size of a pig's bladder, infiltrated with inflammatory liquids; of sodden appearance, and very sensitive.

April 19.—Penis dying, being of a deep purplish-black appearance; line of demarcation formed within an inch of pubes; scrotum covered with purplish spots; radiating lines of redness over groins; severe chills; typhoid state prominent; pulse 120.

April 20.—Patient restless; complains of much pain; pulse not able to be counted; conscious; inflammation extended above the umbilicus; dark-purple spots over infiltrated abdomen; blood extravasated on posterior surface of trunk; nausea, and constrictive pain about the diaphragm; unconscious for several hours preceding the death at 11½ P. M.

Case II.—Wife of first case, æt. 52; nervous temperament; skin blanched; occupying separate room from husband; parents healthy, so far as known; seven years ago was seized with paralysis on both sides, attended with gradual loss of sight; during the last seven years has been in bed, paralytic and blind; all viscera are normal, excepting the brain.

April 15.—She used her husband's commodes; no copulation has taken place for a long time.

April 16.—There was noticed dark-purple inflammation of vulva; pulse 80; respiration 20.

April 17.—Inflammation extending.

April 18.—Pulse 90; respiration not counted; inflammation has reached the anus and groins; extravasation of blood in depending parts of trunk; complains of much pain; restless; marked typhoid state.

April 19.—Inflammation extending over lower part of abdomen; vulva much enlarged, very dark in color; pulse 130; respiration 26.

April 20.—Pulse 165; respiration 20; sighing inspiration; speechless and senseless; death at 1.45 P. M.

Remarks.—The treatment in these cases was supporting.

What was the origin of this disease? Was it an organic poison from without, absorbed by ruptured blood-vessels of an abraded prepuce, causing septicæmia? Did the organic poison in its proper nidus, with heat and moisture, reproduce other infectious protoplasm, which was absorbed by the vaginal mucous membrane? What are the facts in regard to septicæmia? We believe that Dr. Lancereaux* has proved that in man gangrenous materials can be absorbed by ruptured blood-vessels and cause septicæmia; that Davaine and Vulpian have shown that this human septic blood will produce, in lower animals, especially in rabbits, septicæmia; that it possesses a septicity infinitely greater than that of the organic material itself. All these facts seem to have a bearing on the natural evolution of the disease in the above cases, explain it as we may.

THUDICHUM'S DOUCHE IN A CASE OF FOREIGN BODY IN THE NOSE.

BY FREDERICK P. HENRY, M.D.

THE following simple case will serve to show the good results that may be derived from the use of Thudichum's douche in cases of foreign body in the nasal passages.

A little girl æt. 2 years, in a spirit of mischief or enterprise, had introduced a large-sized shirt-button into her nose. Becoming alarmed at what she had done, she had recourse to her mother, who attempted to remove the button with a crochet-needle.

The maternal efforts not being crowned with success, I was called to their aid. The button was there. I could perceive its edge as it lay septum-like far up in the right nasal fossa. I seized it with a pair of dissecting forceps, but it slipped from their grasp and was propelled still farther up, in the same manner as a wet cherry-stone is shot from the finger and thumb. The nose began to bleed, obscuring the view. The idea of the nasal douche occurring to my mind, I sent a messenger to my office, quite near at hand, for the apparatus.

Placing the vessel containing the water on the dining-table, and a large basin on the floor, I placed the child prone on the nurse's lap, with the face over the basin. The child resisted vigorously, but no sooner was the nose-piece put in position than the button shot into the basin with considerable force, and glanced off to the other side of the room.

The child's cries, which were comprised in one prolonged expiratory effort, seemed to have aided the operation by raising the velum and thereby preventing escape of water into the mouth, which any one who has used the instrument on his own person knows is so liable to occur.

The impaction of foreign bodies in the nasal passages occurs almost exclusively in children, and it might be argued that the douche could not be used on account of the want of co-operation of the patient with the efforts of the surgeon. Such argument is worthless. It is just in these cases that the douche works most effectually, the whole *vis a tergo* being preserved by the complete closure of the posterior nares during the child's cries.

This is a simple measure, and, in all probability, has been often resorted to, but I have seen no mention made of such a mode of treatment for removal of foreign bodies from the nose.

* *Archives Générales*, March, 1873.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR S. D. GROSS, M.D., MAY 10, 1873.

Reported by E. E. MONTGOMERY.

GOITRE.

THIS young woman, æt. 19, a resident of this city, comes to us with a tumor of one year's duration upon the right side of the neck. It is of large size, deeply seated beneath the sterno-mastoid muscle, of round shape and inelastic feel; and it moves up and down with the act of deglutition, a fact which shows it to be connected with the thyroid gland.

This disease consists of an enlargement of the thyroid body: either lobe, or the isthmus, may be affected; both lobes are usually the seat of the disease, but seldom in the same degree.

The tumor varies greatly in size, from the slightest enlargement to that of an adult head, reaching from the chin above to the sternum below. It usually increases in size very slowly, but at times may be rapid in its growth, as in the case before us. When of unusual size, it causes difficulty in breathing, headache, vertigo, noises in the ears, and altered voice, owing to the severe pressure to which the vessels and nerves of the neck are subjected.

The internal structure is liable to considerable variety, according to the age and progress of the tumor. When of moderate standing, it is of a soft gelatinous consistence, and emits upon section a ropy, glutinous fluid; later it undergoes a sort of amyloid degeneration, and concretions sometimes appear, either alone or combined with cartilaginous and osseous formations.

In the cystic variety we have one or many cysts forming in the substance of the gland. These cysts sometimes become enormous, holding as much as fifteen to twenty ounces of a serous fluid. This variety is easily recognized by its growth, fluctuation, and its movement with the larynx. If in any case there is doubt in regard to its character, it may be easily determined by means of the exploring-needle.

The causes of this affection are unknown. It is endemic in the valleys of Switzerland, and in other parts of Europe, and exists to some extent in the mountainous

regions of our own country. Drinking of snow water has been assigned as a cause, but it is more probable that it is due to some peculiar condition of the atmosphere.

The diagnosis of this tumor is comparatively easy. Its appearance, progress, and position, together with its movement up and down with the larynx, plainly indicate its character. The only affections with which it is liable to be confounded are, aneurism of the carotid artery, varix of the internal jugular vein, cystic tumors of the neck, and enlarged lymphatic gland.

When the tumor is excessive, a part of it may project over the artery and receive pulsation from it, thus easily leading to the idea of an aneurism; but the signs of distinction are: the absence of whirring sounds, the indolent character of the growth, and the ease with which it may be pushed away from the artery when the muscles are relaxed.

Varix is very rare in this situation, occurs in the lower part of the neck, is of a bluish color, and transmits a soft, tremulous pulsation to the touch.

Cystic tumors are generally small, and move with the trachea; doubtful cases may be determined by means of the exploring-needle.

Enlargement of a lymphatic gland usually occurs in patients of a scrofulous diathesis. The history, hardness, tendency to suppurate, and connection with other enlarged glands, establish the diagnosis.

Treatment.—When there is any heat in the part, my usual course is to apply leeches, and afterwards to use an ointment of the biniodide of mercury, which has been found a powerful sorbefacient: this, however, should not be applied just as it is dispensed in the shops, as it is much too strong. We will take one part of the ointment to eight of simple cerate, and of this will apply a small portion to the surface of the tumor daily, it being carefully washed previously.

Internally, we should expect the best results from some preparation of iodine: therefore we shall give this patient liq. iodin. comp., gtt. x, three times daily, and at the same time admonish her to abstain from meats and live upon plain mild diet.

In the cystic variety, the resolvent treatment is useless; here our only choice is either the trocar and the subsequent injection of iodine, or, with the knife and director, carefully to cut down, layer after layer, and enucleate the cyst. Extirpation of the gland has been practised, but with rather unfavorable results. Dr. Maury, of this city, has twice performed the operation, once with entire success.

When the gland is much enlarged, it must be a bold and fearless surgeon that would undertake such an operation, inasmuch as every step is accompanied with difficulties.

Sanitary Value of Light.—Professor W. A. Hammond, in *The Sanitarian* for May, argues strongly in favor of a freer admission of light to dwellings and school-rooms. After mentioning numerous illustrations of the effect of this agent upon normal and abnormal conditions of the body, he says:

"As has already been intimated, the management of the light in the sick-chamber is rarely the subject of intelligent and scientific action. In anæmia, chlorosis, phthisis, and in general all diseases characterized by deficiency of vital power, light should not be debarred. In convalescence from almost all diseases it acts, unless too intense or too long continued, as a most healthful stimulant, both to the mental and physical systems. The evil effects of keeping such patients in obscurity are frequently very decidedly shown, and cannot be too carefully guarded against by physicians. The delirium and weakness which are by no means seldom met with in convalescents kept in darkness, disappear like magic when the rays of the sun are allowed to enter the chamber. I think I have noticed that wounds heal with greater rapidity when the solar rays are occasionally allowed to reach them, and when they are as far as possible exposed to diffused daylight, than when they are kept continually covered.

"In this country it is rarely the case that disease or injury is induced by excessive light. Occasionally, however, we meet with eye-affections due to excessive light, either coming directly from the sun, or reflected from water, snow, or sand, or resulting from the intense light of a flash of electricity passing near the individual. Bright artificial light may also cause derangement of the visual organs. A child of my acquaintance was rendered permanently amaurotic by looking intently at a bright object while her photograph was being taken.

"The practical application of these imperfect remarks is this, that care should be taken both in health and disease to insure a sufficient amount of light to the inmates of houses, and that it is impossible to rear well-formed, strong, and robust children unless attention is paid to this requirement. Sun-baths, or apartments in which the solar rays can fall upon the naked body, are doubtless highly advantageous to health, and rooms for this purpose could probably easily be constructed in or on most of our city houses. At present a chief object of city families seems to be to devise means for keeping the sunlight out of their houses. That this is contrary to nature needs no argument. The world is said to be under-fed, it is certainly under-lit as we manage it. Let us, then, to use the dying words of Humboldt, have '*Mehr Licht.*'"

Congenital Deformity of the Clavicle (*Irish Hospital Gazette*, February 15).—Dr. Bennett said that the specimen he presented was met with in the dissecting-room, and therefore devoid of history. His attention was drawn to it by observing an enlargement of the outer end of the left clavicle, and he thought at first it was an instance of united fracture of that bone between the conoid and trapezoid ligaments, which usually give rise to bony excrescences. There was no difference in length between the two clavicles. The sternal articulation was normal. The enlargement extended as far as a sharp V-shaped ridge to the outside of the conoid tubercle. The acromial extremity of the clavicle was bifid; one termination was the normal one, and articulated naturally; the second, larger than the preceding, projected backwards outside the conoid tubercle, and articulated by a complete joint with the upper border of the spine of the scapula. This joint was separated by half an inch from the normal articulation, and extended backwards one and a half inch on the spine of the scapula. The conoid ligament was normal, but the trapezoid was greatly enlarged, and extended farther in than natural. There was a distinct articulation between the clavicle and the coracoid process (Knox's joint). In united fractures between the ligaments, bony growths extend downwards through them, so that they may even become anchylosed with the coracoid process; but in this case the ligaments were perfectly free. Dr. Bennett was not aware of any similar case, nor could he explain this excrescence by any morphological analogy. The perfect articulation showed that it was not an exostosis; he therefore regarded it as a congenital malformation. The only objection to this view was its not being symmetrical.

Elongation of the Uvula.—Dr. F. B. A. Lewis, in the *Boston Medical and Surgical Journal* for April 17, records the case of a farmer, æt. 40, in whom the snipping off of one-fourth of an inch of the elongated uvula gave immediate relief to a distressing irritative cough, which had interfered with his sleep and greatly impaired his general condition.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

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EDITORIAL.

"OPIUM-EATING IN MASSACHUSETTS."

IN the London *Lancet* for April 12, there is, under the above heading, an editorial article, upon which we cannot help making a few comments. The writer says, "Some months ago we drew attention to the increasing prevalence of opium-eating on the American continent, and to the fact that the habit was assuming such proportions as to cause considerable uneasiness among the medical profession of the country. Some interesting particulars bearing on the vice may be gathered from the last annual report of the State Board of Health of Massachusetts. The Board sent out the following questions to all the medical men practising in the State: 'Are preparations of opium used by the people except for the relief of pain? Has the injurious use of opium increased of late years?—and, if so, what is the cause of such increase?' One hundred and twenty-five gentlemen replied to these questions, in terms which may be summed up as follows: Forty reported that they did not know of any cases of opium-eating, or that it was used for other than medicinal purposes; while the remaining eighty-five stated that the habit prevailed considerably in their various districts and localities, and was increasing in extent."

The usual fearful array of enormous doses of various opiates is then given; but the author thinks these representations must be received with caution, since "It must be remembered that in the States the drug probably contains many matters besides the inspissated juice of the Papaver somniferum; while the possibility of the 'vamping' brush having been called into requisition in collating the reports must not be lost sight of."

He next quotes some of the assigned causes which led to the practice of habitual opium-eating, and winds up by saying, "It is difficult to devise a remedy for what threatens to become a corroding ulcer in the national life of the great Republic. It must, however, in view of the 'smartness' which would quickly evade legal restrictions or duties on the sale of the drug, be a moral and an educational one."

It may have been ignorance on our part, but we really were unaware that the opium habit was increasing in this country to such an extent "as to cause considerable uneasiness among the medical profession;" and the Massachusetts State Board of Health would seem to have been less impressed by their own statistical results than the *Lancet* was; since in their last report, published in January of this year, they make no allusion whatever to the subject.

We do not know why "in the States" the supply of opium should be any more likely to be adulterated with "many matters" than elsewhere, or why our reports should be suspected of being "vamped" to a greater degree than those of other countries.

The *Lancet* is worried about opium-eating in the United States; but the drug used is probably weakened by adulteration, and the reports are exaggerated; still, the nation's life is threatened, but the people are so incorrigibly evasive of law that the remedy must be "moral and educational." Altogether, the mind of this sympathizing writer seems to have been somewhat befogged.

Much in the same way, in private life, have we heard a piece of scandal produced and commented on among a parcel of old ladies,—holy horror, semi-incredulity, pious good wishes, and cheapening of chances for reform,—the whole thing. It is as neat a "bit" of human nature as one often meets with.

REVIEWING.

ONE of our British cotemporaries has recently expressed itself on the subject of the reviewing of medical books, and, by way of showing how the thing ought to be done, has proceeded to give a sort of clinic, the surgical works of Messrs. Erichsen and Bryant and of Prof. Gross filling the *rôle* of patients. Assuredly the lecturer wields a skilful pen, and demonstrates the operation effectively; but he has set us to thinking.

Reviews, like books, vary much in their style, their object, their elegance, and their truth. There are writers of reviews who think an author is fair game, to be hunted down; there are others who think him a peg upon which to hang an exhibit of their own wit and learning. Some can see only merits, or only faults; some are so influenced by the author's style that they are equally blind to his reasoning or to his want of it. Some are so far forgetful of the responsibility of their task that they allow personal feelings, friendship, animosity, or jealousy, to give tone to their criticisms.

All this is wrong. The object of the reviewer should be to give his readers a calm and dispassionate estimate of the book submitted to him, with such an idea of its general scope and drift as may enable them to judge of its bearing upon whatever branch of science it may treat. Whatever merits, and whatever defects, it may possess, should be pointed out, with neither fear nor favor. In no other way can such a verdict be given as will be sustained by the general voice. Criticism can neither make nor break the fortunes of a literary or scientific work, although it may influence them with a limited number of readers, who prefer having their minds made up for them by others. We venture to assert that no book has ever been unjustly dealt with by the profession at large; and this is the real tribunal by which it is to be judged.

LEADING ARTICLES.

LIFE-INSURANCE.

THE article upon "A Life-Insurance Case," in the number of this journal for May 3, opens a subject of great interest to the profession, as well as to the assured. We who have had experience in the business have seen much of the undue eagerness of agents to force unsafe risks upon the companies in order to secure their commissions; and I believe by some offices such a curious view is held, that the examining doctors, when unsalaried, are only paid for those that they pass. Could there be a greater inducement for carelessness than such an arrangement as this?

Applicants also are frequently, through ignorance, and through instructions from solicitors, led into wrong. Only to-day, a gentleman applying for insurance told me that before he had seen the physician he casually fell into a conversation with the agent about himself, and mentioned some symptoms which may have been of great or of little importance, but certainly demanding serious attention. "Oh," said the agent, "you needn't say anything to the doctor about that." And, thus instructed, and thinking it all right, I believe he acted. In view of such facts as these,—and they are by no means of unfrequent occurrence,—how careful should the companies be in the selection of those officers whose business it is to protect both the assurers and the assured! The medical officers should be entirely independent; any attempt to influence them should be regarded as officious interference, and the agent should be punished by dismissal.

These views are founded upon others, which I hold in common with many, and which, I think, ought to govern the ruling principle in legal cases.

We all know of the long list of questions which are sent to physicians to answer after the death of one whose estate holds a policy upon his life. These questions are of more or less weight, but some of them indicate a disposition on the part of the companies to get rid, if possible, of their obligations. I have now in my possession a letter from a high officer in a company of great pretensions, asking me in reference to a man over forty years of age, and who had died of smallpox, whether he had been successfully vaccinated. I do not know whether the officer was interested in vaccination statistics or not, but it looked to me very much like an attempt at quibbling, not at all compatible with the dignity of a great company, that puts enormous figures upon its sign-boards and advertisements.

I hold that there are but two subjects of inquiry before the payment of a loss,—the *identity* and the *death*. Was this A. B. mentioned in this policy? Were you present at A. B.'s death, or have you seen his body since? If not, please refer us to some one who has seen it.

I cannot think of anything in human pursuits that is analogous to life-insurance. It is not, as is sometimes said, just like any other business. It is the only business that is founded upon absolute certainty, and that is the death of *all* the assured. In making up the tables, therefore, upon which its premiums are founded, nothing that contributes to the death-rate of a community, including margins for epidemics, has been left out. Suicide, murder, accident, rows, mania â potu, syphilis, and all the numerous and varied ills that come from man's imprudence and frailty, are included. Why, then, *having once accepted a risk*, should the assurer claim exemption from payment if the death occurs from one of the causes indicated? Has he a right to exclude what he fully included in the basis upon which he made up his risk?

"Having once accepted a risk" I italicize, and

there is the important point. The common, and universally admitted, use of the word risk in conversation and writings upon the subject of life-insurance, indicates what it really is. The death is certain; the risk is as to how and when that death will occur. Now, as human frailty is in a very great measure a producer of death, it becomes to the companies one of the elements of a risk. It cannot, in any justice, be excluded after death. How then diminish it as much as possible? Simply by excluding it as much as possible *before* taking the risk.

Let the companies have well-paid and competent medical officers. Let no medical officer be in any sense of the word a solicitor, or interested in soliciting. The medical examination should be entirely private as between the physician and applicant; and, after failing to detect any present obstacle to acceptance, should reasonable doubt arise in the mind of the examiner as to the truthfulness of the statements made to him in regard to history, habits, predisposition, occupation, etc., he should suspend judgment, and seek information from all outside sources at command. In this search he should be cheerfully aided by the officers of the company, and not impeded, as is well known to be sometimes the case, by those who are pecuniarily interested. By these means the nearest approximation to safety will be attained.

Perfection and prescience are not attainable. Examiner and applicant are alike human; but see that the first is the best you can command, and if the latter deceives him, it is part of the risk.

The happiest man of to-day may become a suicide in a year; the most temperate one may die a drunkard; the most loathsome diseases may be contracted in a night's debauch. Who is to tell? The divine power only can separate the sheep from the goats. The "selection of the fittest" is the only guide for the examiners; and for these reasons I maintain that when once a risk is underwritten the responsibility is assumed, and there is no escape.

H.

CORRESPONDENCE.

LONDON LETTER.

[*From Our Own Correspondent.*]

The Anatomical Relations of Tubercle—Debate in the Pathological Society of London—Characteristics of English Medical Debates—The Principal Speakers—Is Tubercle specific in its Anatomical Characters or its Origin?—Proposed Abolition of the Term "Tubercle"—Insufficiency of Anatomical Characters—Death of Dr. Bence Jones—of Professor Partridge—of Baron Liebig.

LONDON, April 26, 1873.

THE great discussion on the anatomical relations of tubercle initiated at the Pathological Society of London has been brought to a conclusion, after three sittings, the whole of which were devoted to it. It has extended over so wide a field, and has occupied so many different parts of the field, of pathological and clinical observation, that it is quite impossible to present an intelligible summary of it within the space of a letter, and I can only refer to a few points of interest in connection with it. The whole debate, however, will, I believe, appear very shortly in a verbatim report which is about to be published in pamphlet form, and I dare say it will find its way to your side of the Atlantic, so that those of your readers who are sufficiently interested in the subject to desire to read what are the opinions of the leading authorities in this country on existing doctrines of tubercle will easily be able to do so in the words of the respective speakers.

The leading speakers have been Dr. Wilson Fox, the Professor of Pathology in University College; Dr. Charlton Bastian, F.R.S., of the same college; Dr. J. H. Green, of Charing Cross Hospital; the veteran Dr. C. J. B. Williams, Dr. Lionel Beale, Dr. Cayley of Middlesex Hospital, Dr. Payne of St. Thomas's, and Dr. Moxon of Guy's. These are the flower of our pathological schools, and they have drawn crowded houses every night. At first it was proposed to impose arbitrary limits of time; for the ordinary rule of the Pathological Society is that no speaker is allowed more than ten minutes, or, at most, twenty minutes; and the latter limit is usually very rigidly observed. But on this occasion, in deference to the strong opinion of the members unofficially or semi-officially expressed through a leading medical journal, the rule was suspended; and, although the speakers on this almost interminable subject were besought to observe brevity to the utmost of their power, no limits were imposed. The whole tendency of our English societies is, however, to discourage orations; there is always observable a nervous desire to avoid oratory on the part of the speakers, and a great impatience of anything approaching to it among the auditors. Short, dry statements of unadorned facts and arguments are what is expected, and nothing else is tolerated. Hence we have not among us more than two or three orators; and these are always careful to repress their capabilities in speaking at the medical societies, and only display their powers elsewhere. Sir James Paget is a born orator; so are Sir Thomas Watson and Sir William Gull and Mr. Savory; but they are rarely heard at the societies in more than a few sentences, delivered in a studiously subdued monotone and with a deliberately passive manner which excludes all gesture. When occasionally a foreign orator, such as M. Ricord or Demarquay, or M. Labbé (recently), has addressed English meetings of medical men, as at the last meeting of the British Medical Association, it has been curious to observe the half-startled, half-amused expression of their listeners, as they poured forth their orations with animated gestures, in high-pitched notes, and with the artifices of interrogation, response, protest, sarcasm, and voluble argument which belong to the trained speaker who expects his auditors to follow him by the hour together.

The habits of a lifetime are not easily overcome; and hence in this set debate, in which something of oratorical grace would neither have been ill placed nor unpleasing, there was very little of the kind to relieve the dryness of a very abstruse discussion. It was thoroughly English in its sobriety, earnestness, and solidity,—and also in its dulness. But nevertheless the audience felt that they were being instructed; no one was speaking for effect, or attempting to cover thinness of matter by volubility of manner, and they were well satisfied. Sir William Jenner, the president, shrank from the task of summing up the far-reaching debate; and I may hardly be expected to attempt what he felt to be beyond his critical powers. The various journals have essayed it; but, as each of their summaries extends to eight or ten columns, their example is not encouraging. Perhaps the most available is that in the *Medical Times* of April 20. The writer says, "This much in the discussion was patent to all. In the lungs of children dying of acute tuberculosis are to be found certain changes which may be taken as typical in all important respects of the changes of the same organs in phthisis. These changes consist in the development of cells of an epithelial and lymphatic type, with a greater or less tendency to fibrillation, and after the death of the cells to caseation. Is this tubercle? Is it specific or characteristic? What is its etiology? and is it the only essential change in a phthisical lung?

"Some denied the specific nature of tubercle altogether, and others said it was specific as regards its life-history, but that there was no characteristic structure whereby it could be recognized; others still concerned themselves in discussing words and definitions. Some went so far as to propose to do away with the name tubercle altogether: how many would bless them if they could as easily do away with the thing to which the name is commonly applied! An attempt was made to elevate the existence or absence of 'giant cells' into an important criterion of the structure of miliary tubercle, but it was not generally adopted. Undoubtedly such do exist; but their exact meaning is yet far from clear. Another question which arose was, how far we were justified in extending the term tubercle to the infiltrations sometimes found along with the small gray granulations. Well, if there is no perceptible difference in structure between the two,—if the one merges insensibly into the other,—it is hardly possible to refuse the same name to both, even although there exists a tendency to aggregation in small nodules in the one which is not seen in the other. But perhaps the most important part of the discussion was, whether the growth called tubercle was specific or the result of ordinary inflammatory changes. All seemed to admit that the process ordinarily called inflammation had something to do with the production of the changes seen in phthisis; but most seemed to think also that the process called tuberculosis, ending in the production of a distinct growth, had more. Had, then, this tubercular growth any origin apart from the origin of the inflammation? was any specific irritation necessary to set it up? or was it only a question of degree, whether the large- or small-celled growth was the result? Most seemed to think that some such specific cause was necessary, but were not inclined to say wherein it consisted, though some thought it could act both locally and from a distance. Some seemed to think that caseous matter was the source of infection; but others, again, that in certain imperfect constitutions any irritations might give rise to the peculiar growth they called tubercle."

In the absence of any summing up, these questions cannot be considered to have been decided; but the general result of the discussion has been, I think, to produce the opinion that Dr. Bastian is right in advocating the disuse of the word "tubercle," inasmuch as "there is no anatomical structure which can be fitly established, under the name of tubercle, as the proper basis of phthisis in every kind." Miliary deposits are looked upon as, and indeed shown both by Bastian and Green to be, merely the results of an infective process; and the giant cells of Schüppel which have been investigated, and even shown by Bastian and Cayley, are believed to be not more characteristic, but rather to be the result of chronic indurative inflammation in tissues intimately connected with the lymphatic system.

Dr. Anstie, who writes the *Lancet* articles on the subject, while admitting as the result of the debate that the word "*tubercle*" ought to disappear from pathological nomenclature, doubts whether "*granulie*" proposed by Bastian (after Empis) ought not to be employed as synonymous with "tuberculosis" to express simply the important clinical facts which are bound up in the acute febrile disease attended with greater or less diffusion of granular deposits, including, nearly always, granulations (usually fatal) of the cerebral meninges. Dr. Aufrecht has just issued a monograph in which he seems to employ it;* and, patronized by active workers in France, Germany, and England, it is likely to come into favor.

No doubt also the discussion has tended to show that merely histological investigations do not suffice to differentiate "tubercle" as a disease from other diseases, and that, altering our pathological views, we must rely more than has been the tendency of late years upon clinical lines of distinction. On the whole, I think this debate will be found extremely interesting to pathologists and physicians generally, and not unworthy of the reputation of the Pathological Society of London.

I fear I have left myself little room to advert to any other topics in this letter. We have, I may however mention, had to deplore the death of Dr. Bence Jones, F.R.S., well known as a highly eminent physician of the chemical and philosophical school in connection with the study of diseases of the kidneys and digestive organs. Married to a lady of title and fortune, early achieving the position of senior physician of St. George's Hospital, the pupil of Liebig, friend and biographer of Faraday, and Honorary Secretary to the Royal Institution of Great Britain, he filled a large and useful place in the promotion of biological science, both

* Die chronische Broncho-pneumonie (Lungenschwindsucht) und die Granulie (Tuberculose). Eine Skizze. Von Dr. E. Aufrecht.

by his example and influence; and his death, from heart-disease, is greatly regretted.

Mr. Partridge, the senior surgeon of King's College Hospital, and late President of the College of Surgeons, is also dead. He came prominently before the public many years ago as having conceived just suspicions and effected the arrest and conviction of Burke and Hare, the famous "resurrectionists," who had supplied the medical schools of London with many hundreds of subjects for dissection, and brought to King's College the body of an Italian street-beggar who displayed for pence a few white mice. This lad they had murdered; and when they were apprehended and about to be tried on rather defective evidence, Mr. Partridge succeeded in obtaining an important circumstantial piece of testimony by suggesting that a trap should be set in their room, in which, accordingly, the white mice belonging to their victim were presently caught. He was also rather unfortunately prominent a few years since as having been summoned to the aid of Garibaldi when wounded at Aspromonte, and having failed to detect the bullet which Nélaton afterwards found lodged in the bones of the ankle, diagnosing its presence by the aid of the famous porcelain probe.

The death of Baron von Liebig is announced here; and, as the great chemist was a frequent visitor to this country, and published here many of his papers on chemical and industrial subjects, and was much respected, many warm tributes of friendship and esteem are published in the daily papers as well as in the chemical and medical publications. His last addition to our food-resources is so popular here that it is common enough to hear a person invited to drink a cup of "Liebig," by which is meant a cup of beef-tea made with his extract of meat, or to hear of soups and sauces made with "Liebig."

I fear neither Mr. Partridge nor Baron Liebig died wealthy. Mr. Partridge, although enjoying very high official positions, had not for many years possessed a lucrative practice. Recently he was President of the Royal Medical and Chirurgical Society, the senior medical society of this country, and, in accordance with the annual practice, issued cards for a full-dress dinner to the Council. A week after their issue, however, the dinner was "unavoidably postponed;" and it was never given. This caused some little gossip at the time; but I believe Mr. Partridge leaves now only a very few hundred pounds. It is sad to see how many eminent men have, or think they have, to spend nearly the whole of their income in "keeping up their position," and how often their later years are ill provided for.

St. Louis, May 9, 1873.

To the Editor of the Philadelphia Medical Times:

DEAR SIR:—The newspaper reports of the doings of the American Medical Association are so full as to require little to be said on my part. I shall therefore merely give you the impressions made by the convention which has just adjourned. It seemed to be the universal regret among the profession here that the Association chose to convene at St. Louis at a time when the city was in a condition to display itself to the least advantage. The small number and crowded condition of her hospitals, the unsettled state of her medical societies, rendered the profession fearful lest the impression might be conveyed that she had fallen back in the onward march towards the establishment of a more thorough change in the advancement of the study of medical science. Far from this being the case, everything has been done to place St. Louis foremost among the medical centres of the country. Large hospitals are being erected, and plans are proposed to attach them to the colleges for the purpose of furthering clinical instruction. The kind reception met with by the delegates from the profession proved the fact that whether the meetings of the Association have a tendency to promote the advancement of medical science to any degree or not, they certainly are of great utility by drawing together the medical men from all parts of the Union, encouraging the free interchange of opinion, and bringing the profession before the public as a body of learning and intelligence.

I am safe in saying that, so far as I can determine, the feeling among the delegates was that little if any apparent scientific advancement was accomplished during the convention. True it is that a foundation has now been laid, upon which the Association may rest in future more firmly. The formation of a judicial body, as you will see by the report, was certainly a desideratum, and the referring of miscellaneous matters to appropriate sections rendered the sessions far more useful. The five sections were as follows: Surgery; Practice of Medicine and Obstetrics; Psychology and Medical Jurisprudence; Chemistry and Materia Medica; Climatology and Public Hygiene. The sections seemed to accomplish little; their sittings were nearly always characterized by a lack of energy and interest on the part of the few members in attendance. So obvious was this on the second day that attention was called to it at the public meeting of the Association on the following morning. The surgical section was the most largely attended; as for the one on chemistry and materia medica, owing to the small attendance, it was often difficult to find. A subject for general remark was the non-attendance of many members, whose position renders them prominent in the Association, from Philadelphia and New York. Was it, it was asked, that the Association was being abandoned by its older members, or were these men gradually alienating themselves from an active part in the proceedings, and substituting strangers in their stead, at a time when of all others they were most needed?

The attendance was quite large, over four hundred delegates being registered by the evening of the first day. The meetings of the Association, which were held in the mornings, were characterized by a cordiality among the members, and a freedom from violent discussion, which rendered them better able to dispose of the subjects which came up for their consideration. It

seemed really as if the meetings of that staid and deliberate body were for the purpose of giving the delegates a frolic,—of relieving them for a few hours from the toils of their professional work. As far as that was concerned, the twenty-fourth annual convention was decidedly a success.

The Association of Medical Editors, which convened on Monday evening, was addressed by Dr. Parvin. The entire address, published two days after, I send you. The meeting was very poorly attended, about fifteen gentlemen only being present. The committee on prizes being absent, the distribution of the awards for the best essay was deferred.

Very respectfully yours, K.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

SEMI-MONTHLY MEETING, April 23, 1873.

Reported by JAMES S. BAILEY, M.D.

DR. ALBERT VAN DERVEER, PRESIDENT, in the chair.

PHLEGMASIA DOLENS.

DR. A. P. TEN EYCK addressed the Society upon this subject. He remarked that it was comparatively a rare disease, most commonly confined to parturient women, though unmarried females and males were sometimes thus afflicted, and referred to two cases mentioned in Druitt's Surgery where it occurred in men. He was of the opinion that, as it so seldom attacked the male sex, it should be classed as a disease peculiar to females.

It was explained as being an inflammation of the femoral vein, produced by the various influences incident to childbirth, as the unskilful use of instruments, too early getting up, cold, etc. It frequently occurs without apparent cause, as illustrated by a case about to be mentioned. The pathological state has been differently described by writers: the older authors supposed the tumefaction was due to milk deposited in the affected limb, which idea gave rise to the name of milk-leg; but, now that its true nature is better understood, these names have been abandoned, and the name phlegmasia alba dolens adopted.

Dr. TEN EYCK remarked that the affected leg had a peculiar milky-white appearance, and the lacteal secretion, however copious before the attack, is afterwards diminished or entirely abated. These facts might well justify the name milk-leg, which has been adopted in unprofessional as well as in professional parlance.

Mrs. R., æt. 24, of medium size and fair complexion and inheriting a good constitution, married, became pregnant, and aborted during the third month from a severe fall. In eight months more she again conceived, and went on to full term before confinement, when she was delivered of a large-sized child without offering any obstacle to a safe and easy delivery. No untoward symptoms presented after confinement. The next day she complained of headache, which continued more or less for the next two weeks, the lacteal secretion being rather scanty; the lochial discharge was normal.

Thirteen days after delivery she complained of pain in the left groin and hip and in the calf of the leg. There was no chill or any symptom of fever preceding this pain. The pain grew severe, the patient became restless, appetite impaired, tongue slightly coated, pulse 120, and in seven days more the limb was much swollen. The pain, swelling, and pulse continued to increase; the lacteal secretion diminished, but the lochia remained about the same.

Upon the thirteenth day all of the symptoms were aggravated, pulse 140, pain excruciating, swelling enormous from the ends of the toes up to the body, and even the abdomen was enlarged and tender. The labium majus on the affected side was swollen so much as to render micturition difficult. The limb had the characteristic tense shining-white appearance of the disease, and the femoral vein could be felt under the finger like a whip-cord. The bowels were but slightly constipated, skin moist, and the tongue but slightly coated. On the twenty-sixth day the lacteal secretion was entirely suppressed, and the pulse still continued 140.

In a little more than a month there was an abatement of the symptoms, with a diminution of the pulse and swelling, which gave encouragement of recovery; but his improvement was only deceptive, for in eight hours more the pulse rose to 160, with great increase of pain, but on examination the first limb attacked was nearly of normal size, but the other was enormously swollen; the labium on this side was now swollen as had been its fellow, and the same inconvenience in urinating followed. In the track of the femoral vein some portions assumed a livid hue, and the doctor feared that a sphacelous condition would ensue. After a few days these threatening symptoms passed away, and the case progressed in a favorable manner; but the pulse never fell below 130 until three months after the attack. About this time an eruption resembling that of smallpox made its appearance. Between the pustules the limb was scarlet. This condition lasted two weeks; both limbs were covered with the eruption. In the course of four months she was sufficiently recovered to walk across the room without support.

Dr. TEN EYCK then referred to the treatment, after making mention of the treatment of others as published in medical journals. He remarked that in his case he supported the system and administered anodynes to relieve pain. Iron and quinine were used as a tonic; the bowels were occasionally regulated with Seidlitz powders. As local applications he used a weak solution of carbolic acid, applied hot, to the first limb affected, but to the second limb attacked he used thirty grains of sulph. ferri to the ounce of water, as hot as could be borne to the limb, it being bandaged from the body to the toes. This seemed to give better satisfaction and to give more relief than any thing else, the only objection to its application being its permanent stain to the clothing.

Dr. JAMES S. BAILEY said that he had seen an unusual number of cases of this disease, and that four cases had occurred in his own practice, in the first seventy-five cases of midwifery that he had attended, in the year 1871. In three cases it only appeared in one leg; in one case in both legs, first one and then in the other: one of the women was a primipara, the other three multiparæ. The woman in whom it occurred in both limbs was delivered of twins. She died in the course of three months, from exhaustion. He regretted that he could not obtain the consent of the friends to a post-mortem examination.

The plan of treatment adopted was to support the system, keep the bowels regulated, give anodynes to relieve pain and procure rest, and to wrap the affected limb in flannel cloths wrung out of hot water and applied as warm as could be borne, and this dressing covered with oiled silk. These applications were continued until all signs of inflammation had subsided.

Dr. S. H. FREEMAN remarked that he had occasionally in his practice met with cases in females of lymphatic temperaments with light complexions, and had used

spirits of turpentine freely, but with care, to the affected member. In one case, occurring not long since, the nurse had used it rather lavishly, and it had produced vesication, after which he had wrapped the limb in cotton batting and covered this with oiled silk. The case did well, and recovered in three weeks.

Dr. F. C. CURTIS said that Prof. Thomas, of New York, recommended a vesicant along the course of the vein, at one side of it.

Dr. E. H. DAVIS said that he was much pleased with the paper just read, and regarded the subject of phlegmasia dolens as well worthy of the consideration of the Society. He had seen quite a number of cases, and had observed its onset, course, and termination; was not prepared to say that it is or is not a disease of the femoral vein; but, with his views of what constitutes phlebitis, he did not think that inflammation of the femoral vein was the exclusive cause of the disease, but was inclined to the opinion that the inflammation involved the veins, lymphatics, muscles, and cellular tissue; but regards its pathology as still unsettled. The treatment depended upon the general condition of the system. In case of plethora and fulness, with violent inflammatory symptoms, he would not hesitate to bleed; but, in an opposite condition of the system, quinine, with other tonics, might be early necessary. The local application of the hot infusion of hops had been found very serviceable in his practice, followed later by stimulating embrocations.

(To be continued.)

OBITUARY.

WAR DEPARTMENT, SURGEON-GENERAL'S OFFICE,

WASHINGTON, May 5, 1873.

THE Surgeon-General announces with regret to the Medical Corps the death of one of its senior members, Surgeon and Brevet Brigadier-General Madison Mills, which occurred at Fort Columbus, New York Harbor, on the 28th of April.

Receiving his commission as Assistant Surgeon, U.S.A., in April, 1834, Surgeon Mills's service extended over a period of thirty-nine years, during which it was his fortune to take part in the Florida war, the war with Mexico, the Utah Expedition of 1858 (as Medical Director), and the war of the Rebellion. He was Medical Director of the Department of Tennessee (General Grant's Army) at the time of the siege and surrender of Vicksburg, and in December, 1864, was appointed Medical Inspector General, the duties of which position he discharged most satisfactorily. In November, 1864, the brevets of Lieutenant-Colonel and Colonel, and in April, 1865, that of Brigadier-General, were conferred upon him for faithful and meritorious services.

Possessed of unflinching determination and courage, and guided by professional abilities of a high order, his administration of the trusts confided to him was marked by a prompt efficiency and sound judgment that secured successful results, even under the most adverse circumstances.

J. K. BARNES,
Surgeon-General, U. S. Army.

ELIMINATION OF SALTS OF MERCURY.—M. Byasson is quoted in *Le Mouvement Médical* for March 22 as announcing the following conclusions: The bichloride of mercury taken by the mouth may be detected in the urine about two hours afterwards; it appears in the saliva about four hours after its ingestion. It has not been found in the sweat. Twenty-four hours after the swallowing of a dose of this article, it may be considered as eliminated.

GLEANINGS FROM OUR EXCHANGES.

DR. STIFF (*Boston Medical and Surgical Journal*, April 10; from *Correspondenz-Blatt der deut. Gesell. f. Psychi. u. gerichtlich. Psychol.*, 1872, 11 and 12) mentions a species of optical illusion of which he was the subject during an attack of scarlatina. He saw hunts, numberless wild beasts, followed by as numberless packs of hounds; behind these, innumerable huntsmen; soon again, great masses of troops falling upon one another; at another time processions, herds of slaves, masses of people, etc. Most remarkable, however, was the mode in which these masses were grouped and moved. They arose from two sides and approached, or rather two columns advanced from the same side to meet in the middle, where was an undistinguishable confusion. These phenomena were visible with the eyes shut, and in a dark room. In the light they disappeared. The fashion of the appearance corresponded so exactly to the course of the large vessels of the retina, that he concluded it must be owing to the blood flowing through the veins, and that the sight of the various figures was dependent upon the impression made by the blood-corpuscles moving through the veins to the papilla, where was the confusion of all forms. He questions whether the phenomena seen during delirium tremens may not sometimes be of this nature.

THE THIRD INTERNATIONAL MEDICAL CONGRESS, TO BE HELD IN VIENNA (*Wiener Med. Presse*, April 13, 1873).—The Third International Medical Congress will be under the protectorate of his Royal Highness the Archduke Rainer.

I. The Congress is to assemble in Vienna, during the "World's Fair" in that city, and will remain in session from the 1st to the 8th of September, 1873.

II. Members of the Congress are: 1. Members of the Executive Committee already appointed to make preparations for the Congress. 2. Delegates from governments or from scientific corporations,—universities, academies, medical societies, and hospitals. 3. All physicians and scientific men who announce themselves before the day of the opening of the session as prepared to take part in the Congress.

III. There will be no tax levied upon the members in the Third International Congress.

IV. The sittings of the Congress are to be public. The Executive Committee and the medical societies of Vienna will attend to arranging the members into departments devoted to special scientific subjects.

V. All the members of the Congress have a right to discussion, and a vote.

VI. The programme of the various sittings is—*a.* Reading of the order of exercises prepared for the Congress by the Executive Committee; *b.* Consideration of questions handed in before the 15th of August, and arranged for given sittings of the Congress.

VII. The questions and points of consideration prepared by the Executive Committee are as follows: *a.* The vaccination question; *b.* The question of quarantine in respect to cholera; *c.* The prostitution question; *d.* Sanitary management of cities; *e.* Propositions for an international pharmacopœia; *f.* Propositions relative to an introduction of a greater conformity in the study of medicine in all countries, and a corresponding right to emigrate and practise where one desires.

VIII. The programme thus decided upon will be distributed to various sub-committees, who shall introduce the subjects with suitable reports.

IX. The president of the Executive Committee is to preside at the first and last sitting of the Congress. At the first sitting the members shall choose chairmen for the remaining sittings of the Congress. The bureau of

the various sittings and for the Congress in general is formed by the members of the Executive Committee.

X. Voting upon scientific questions, as such, shall not occur, but only upon propositions which have for an object the influence of the Congress upon regulations and rules of government in important general sanitary measures.

XI. All voting upon questions proposed by the programme, and all elections, shall be by ballot.

XII. The language used in the Third International Medical Congress shall be the German; yet other languages will be allowed. The communications from the Executive Committee shall be in German, accompanied by French, English, and Italian translations. The same holds good for the publication of the various acts of the Congress.

XIII. In the sitting preceding the last, the place for the meeting of the Fourth International Medical Congress will be decided, and the Executive Committee for it appointed.

XIV. The proceedings of the Congress are to be subsequently published and sent to the members.

VIENNA, March 1, 1873.

ORDER OF BUSINESS FOR THE THIRD INTERNATIONAL MEDICAL CONGRESS, TO BE HELD IN VIENNA (*Wiener Med. Presse*, April 13, 1873).

1. The sittings of the Congress shall occur daily (Sunday excepted), in the forenoon, from 9 until 1 o'clock.

2. Each member shall receive a printed programme of business, a number of ballots containing his own name, and one ballot for each question to come before the Congress:

a. For the choice of presidents for the single sittings.

b. For the choice of place for the Fourth Congress.

c. For every question introduced by the programme of the Executive Committee. Sec. XI. of the statutes.

3. The results of each vote will be collected, so as to make known the vote of each delegate.

4. Communications are to be heard only when made by the author. Communications sent to the Congress are to be read in a special session appointed for that purpose, and copies distributed to the members, if copies are sent to the Congress by the authors.

5. No speaker may occupy more than fifteen minutes, unless specially allowed by the meeting.

6. During the session of the Congress the executive will publish a daily announcement of subjects of interest to the members, and this shall be distributed among the members.

7. The protocol of the Congress will contain only those papers, in part or in whole, which have been handed to the General Secretary in a proper shape.

8. The collection and publication of the official report of the transactions of the Third International Medical Congress is the duty of the General Secretary.

VIENNA, March 1, 1873.

POSITIONS FOR CATHETERISM.—Mr. Teevan, Surgeon to West London and St. Peter's Hospitals, says, in the London *Lancet* for February 15, 1873, that the sitting position is best for the surgeon and the standing best for the patient. The following are some of his reasons:

"However prolonged the operation may be, the surgeon will not become fatigued. . . . It is the one position in which he enjoys the maximum amount of mobility with the minimum of power, and is therefore the one position in which he is least likely to make a false passage. . . . If the surgeon adopts the sitting position, I feel convinced that he will, in the long run, prove a far more successful operator than one who stands, and that he will often succeed where the latter has failed."

In the patient, "what we desire is fixity, and we shall best achieve this object by placing him upright against the wall and stretching his penis horizontally forwards. So situated, we have at last obtained all that can be desired; for the urethra, instrument, and direction of force are all in the same horizontal and vertical plane, and our axis of vision will nearly correspond. Thus, therefore, we shall be able to impress on the point of the catheter, when lost to view, any direction we may desire it to seek, and our operation will no longer be an exhibition of blind and unguided force, but a successful demonstration of applied skill."

MISCELLANY.

GERMAN STUDENTS IN THE LATE WAR.—An interesting work has just been published at Leipsic, giving an account, by a German student, of the part taken by members of the different German universities in the late war, of the services performed by those of the medical profession under the red cross, and biographical notices of 248 students and 4 professors who fell in action. The University of Leipsic suffered the greatest loss,—63 members in all. The losses of the other universities were as follows: Berlin, 30; Göttingen, 23; Munich, 21; Halle, 19; Heidelberg and Jena, each 13; Breslau, 11; Bonn, 9; Tübingen, 8; Rostock, 6; Greifswald, Kiel, Königsberg, and Würzburg, each 5; Marburg, 4; Giessen, 3; Freiburg and Münster, each 2; Erlangen, 1. Out of the 13,765 German students matriculated in the summer term of 1870, 4510—that is, a third—went through the campaign, about 3500 of whom were in the ranks, and 1000 attached to the ambulances. Out of 1505 university professors, 15 were under arms, 253 devoted themselves to the care of the sick and wounded, and 120 worked for the national cause by speech and pen.

THREE journals devoted to sanitary matters have recently been started. Of these *The Sanitarian*, published in New York, under the editorship of Dr. A. N. Bell, is the most promising. There is certainly much need for the discussion of these subjects; but perhaps the end would be as completely answered by publications in journals devoted to the general interests of medical science.

INTERNATIONAL COMPLIMENT.—Last winter Dr. Acland, F.R.S., LL.D., Regius Professor of Medicine in the University of Oxford, and honorary physician of the Prince of Wales, was elected a member of the American Philosophical Society of this city; and recently a similar compliment was conferred upon him by the Academy of Medicine of New York.

SURGEON-GENERAL BARNES, of the United States Army, was recently one of three nominees for a vacant corresponding membership in the Paris Academy of Medicine. The ballot, however, resulted in the election of Mr. Prescott Hewett, a British surgeon of eminence.

AT a late meeting of the Obstetrical Society of London, Drs. Fordyce Barker and T. Gaillard Thomas, of New York, were elected Honorary Fellows of the Society.

NOTES AND QUERIES.

"EAR-COUGH."—"Ear-cough," so named by Dr. C. B. Fox, of Scarborough, England, is caused by irritation applied to the external auditory meatus. This irritation is most probably communicated through the auricular branch of the pneumogastric nerve to the lungs, and hence the cough.

I have under observation several cases of this cough in patients affected with chronic catarrh and adhesions in the middle ear. In two cases the irritation can be produced only through *one* ear. In a case where I performed paracentesis of the membrana tympani through a cicatrix in the posterior portion of the membrane, severe "ear-cough" was excited, and lasted five minutes. This was the *only* unpleasant symptom caused by the operation, there being no bleeding nor pain. If "ear-cough" is created by excitation of the pneumogastric nerve (Romberg and Toynbee), a cough may also be excited in the same person, who, without doubt, possesses a peculiar susceptibility to irritation of the pneumogastric nerve, and consequent coughing, by the administration of quinine, as in Dr. J. Solis Cohen's case (*Philadelphia Medical Times*, No. 79, 1873). This fact, related by Dr. Cohen, would seem to indicate that "ear-cough" is caused by an irritation of the pneumogastric nerve, rather than by "a sympathetic communication between the larynx and the ear by means of the auriculo-temporal branch of the fifth cranial nerve" (C. B. Fox), since a cough "exactly similar to the 'ear-cough'" was induced by the administration of quinine, which, without doubt, irritated the vagus.

CHARLES H. BURNETT.

BOOKS AND PAMPHLETS RECEIVED.

Conium in the Treatment of Insanity. By Daniel H. Kitchen, M.D., Assistant Physician of the New York State Lunatic Asylum. (From the *American Journal of Insanity* for April, 1873.) 8vo, pp. 24.

Civil Malpractice. A Report presented to the Military Tract Medical Society at its Fifteenth Semi-annual Meeting, January 14, 1873. By M. A. McClelland, M.D. 8vo, pp. 74. Chicago, W. B. Keen, Cooke & Co., 1873.

Mineral Springs of North America; how to reach, and how to use them. By J. J. Moorman, M.D., Physician to the White Sulphur Springs, etc., etc. Crown 8vo, pp. 295. Philadelphia, J. B. Lippincott & Co., 1873.

A Treatise on the Principles and Practice of Medicine; designed for the Use of Practitioners and Students of Medicine. By Austin Flint, M.D., etc. Fourth Edition, Carefully Revised. 8vo, pp. 1070. Philadelphia, Henry C. Lea, 1873.

The Passions in their Relations to Health and Diseases. Translated from the French of Dr. X. Bourgeois, Laureate of the Academy of Medicine of Paris, etc., by Howard F. Damon, A.M., M.D. Small 8vo, pp. 201. Boston, James Campbell, 1873.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM MAY 6, 1873, TO MAY 12, 1873, INCLUSIVE.

MILHAU, J. J., SURGEON.—Relieved from duty in Department of the South, and assigned to duty as Post Surgeon at Fort Columbus, New York Harbor. S. O. 94, A. G. O., May 7, 1873.

ALDEN, C. H., SURGEON.—When relieved by Assistant-Surgeon White, to avail himself of the leave of absence granted in S. O. 56, c. s., A. G. O. S. O. 52, Department of the Lakes, May 6, 1873.

KNICKERBOCKER, B., ASSISTANT-SURGEON.—Relieved from duty in Department of the South, and to report in person to the Commanding General Department of the Columbia, for assignment to duty. S. O. 94, c. s., A. G. O.

WHITE, R. H., ASSISTANT-SURGEON.—Assigned to duty at Fort Porter, N.Y. S. O. 52, c. s., Department of the Lakes.

WILSON, W. J., ASSISTANT-SURGEON.—Granted leave of absence for thirty days on Surgeon's Certificate of Disability. S. O. 66, Department of the Missouri, May 4, 1873.

KING, J. H. T., ASSISTANT-SURGEON.—Assigned to duty at Fort Brady, Michigan. S. O. 53, Department of the Lakes, May 9, 1873.

WEEKLY RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FOR THE WEEK ENDING SATURDAY, MAY 10, 1873.

DISEASES.	*Adults.*	*Minors.*	DISEASES.	*Adults.*	*Minors.*
Abscess	1	...	Fistula in Ano	1	...
Albuminuria	1	...	Fracture of the Pelvis	1	...
Apoplexy	9	...	" " Thigh	1	...
Asphyxia	...	1	Gangrene	1	...
Burns and Scalds	...	1	Hemorrhage	...	1
Cancer	1	...	Hernia	1	...
" of Stomach	2	...	Hooping Cough	...	2
" Uterus	1	...	Inanition	1	10
Casualties	1	...	Inflammation of Brain	2	10
Cerebro-Spinal Meningitis	2	8	" Bronchi	2	...
Child-Bed	1	...	" Heart	1	...
Cholera Infantum	...	5	" Kidneys	1	...
Compression of the Brain	2	...	" Larynx	...	2
Concussion of the Brain	1	...	" Liver	1	1
Congestion of Brain	7	7	" Lungs	16	10
" Lungs	3	...	" Peritoneum	5	...
Consumption of Lungs	34	6	" Pleura	2	...
Convulsions	...	15	" Stomach & Bowels	2	1
Croup	...	1	Intemperance	2	1
Cyanosis	...	2	Jaundice	2	...
Debauch	1	...	Leucocythæmia	1	...
Debility	10	6	Marasmus	...	5
Diarrhœa	1	1	Measles	...	1
Diphtheria	...	3	Old Age	9	...
Disease of Heart	7	1	Paralysis	6	...
" Kidneys	2	...	Pyæmia	2	...
" Spine	...	1	Shock	2	...
Dropsy	6	...	Smallpox	1	...
" of Brain	...	3	Softening of Brain	1	...
" Chest	1	...	Still-Born	...	23
" Glottis	1	1	Strangulation	1	...
Drowned	1	...	Stricture of Œsophagus	1	...
Enlargement of the Liver	1	...	Tabes Mesenterica	...	2
Epilepsy	1	1	Teething	...	1
Erysipelas	1	1	Tetanus	1	...
Fatty Degene'n of Heart	1	...	Tumors	1	...
Fever, Gastric	1	...	Ulceration of Bowels	1	...
" Hectic	1	...	Unknown	1	1
" Scarlet	...	13	Uræmia	...	1
" Typhoid	4	2			
" Typhus	...	1			
			TOTALS	176	152

METEOROLOGICAL OBSERVATIONS TAKEN AT THE SIGNAL OFFICE, PHILADELPHIA, DURING THE WEEK ENDING SATURDAY, MAY 10, 1873.

Month and Day.	*Barometer. Daily Mean*	*Thermom. Daily Mean*	*State of Weather.*	*Rain. In.*
MAY.				
Sunday 4th	30.06	53	Fair, Clear.	.....
Monday 5th	30.15	59	Clear, Fair.	.....
Tuesday 6th	30.35	55	Clear, Fair.	.....
Wednesday....7th	30.36	52	Cloudy, Fair.	.....
Thursday....8th	30.20	48	Rain.	.43
Friday 9th	29 99	50	Light Rain, Clear.	1.50
Saturday 10th	30.03	54	Cloudy, Fair.	.....
Means	30.16	53		1.93

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

SATURDAY, MAY 24, 1873.

In order to place before our readers, without delay, a full report of the proceedings of the American Medical Association at its recent meeting, we have been obliged to change, for this week, the arrangement of the *Times*. Our next issue will be in the usual form.

PROCEEDINGS OF THE AMERICAN MEDICAL ASSOCIATION, TWENTY-FOURTH ANNUAL MEETING.

HELD AT ST. LOUIS, MISSOURI, MAY, 1873.

First Day.

THE Association was called to order at eleven o'clock, May 9, by Dr. D. W. Yandell, of Louisville, the retiring President, who introduced Rev. Dr. Niccolls, who opened the meeting with prayer. Dr. John S. Moore, of St. Louis, then delivered an address of welcome to the members of the Association, on behalf of the medical profession of the city.

Dr. Yandell then introduced the President of the Association, Dr. Thomas M. Logan, of Sacramento, California.

Dr. J. B. Johnson, the chairman of the Committee of Arrangements, supplemented the welcome of Dr. Moore, and presented the report of the committee, announcing the following order of exercises: Presentation of the list of delegates and permanent members for confirmation. (The secretary then read the list of those who had registered.) The committee recommended the hours of meeting from 9.30 to 1.30, the sections to meet from 3 to 5 P.M. In the evening there would be a musical soirée at Mercantile Library Hall, to which the members of the Association and their ladies were invited. On Wednesday evening there would be a soirée at the residence of Colonel J. L. D. Morrison. On Thursday evening Dr. J. J. Woodward, of Washington, D.C., would deliver the Toner lecture, on cancer, in the main hall, illustrating it by exhibitions of microscopical views. On Friday afternoon there would be an excursion to Tower Grove Park and Shaw's Garden, carriages to be in readiness at the hall at 2 P.M. A letter to the President of the American Medical Association, upon the standing of the medical corps in the army, was announced as the order of business for eleven o'clock this morning. A letter was read from Postmaster Filley, announcing that a letter-box had been provided at the hall for the convenience of delegates, and that letters would be collected by the carriers. Also, that members leaving their address with the Secretary could have their letters delivered at their lodging-places or at the hall, as they might desire. In conclusion, Dr. Johnson moved that the names of those who desired to be accredited as delegates, but against whose reception protests had been filed, be referred to the Committee on Ethics. The motion was carried, and the President nominated as such committee Drs. N. S. Davis, E. L. Howard, H. F. Askew, D. W. Yandell, and J. M. Toner.

Dr. Logan then delivered his address. He alluded to the meeting of the Association in San Francisco, two years ago; to the influence of this body in raising the standard of preliminary education for physicians, and in quickening the energies of the profession; to the prevalence of skepticism on the subject of therapeutic means; to the possibility of placing medicine among the exact sciences; to the elevation of its followers in the estimation of the public by the diffusion of correct sanitary and hygienic principles; and advocated a return to the plan of meeting every two years at the national capital.

Second Day.

The Association met at half-past nine o'clock, President Logan in the chair.

The attendance was largely augmented, many physicians having reported and registered during the previous evening.

The Convention was called to order by the President, and the business commenced by the presentation of an invitation from Mr. Dyer, librarian of the Mercantile Library, which was read by the Secretary, Dr. Atkinson, inviting the members to visit the library at their pleasure.

On motion, the invitation was accepted.

COMMITTEE ON NOMINATIONS.

The President recommended that each State appoint a delegation to represent them in the Committee on Nominations. The roll was called, and the following gentlemen were named by their delegations respectively:

Arkansas, A. L. Brysacker; Alabama, G. Moses; Connecticut, W. A. Wainwright; District of Columbia, F. Howard; Georgia, J. P. Logan; Illinois, H. A. Johnson; Indiana, W. H. Meyers; Iowa, A. M. Carpenter; Kansas, D. W. Stormont; Kentucky, R. H. Gale; Maine, A. Garcilon; Maryland, S. P. Smith; Massachusetts, L. F. Warner; Delaware, H. F. Askew; Michigan, W. Brodie; Minnesota, A. B. Stuart; Missouri, J. B. Johnson; Mississippi, J. W. M. Shattuck; New Hampshire, E. F. McQuesten; New Jersey, S. Lilley; New York, H. W. Dean; North Carolina, R. J. Hicks; Ohio, A. Dunlap; Pennsylvania, W. J. Asdale; Rhode Island, L. Morton; Tennessee, W. T. Briggs; Texas, D. R. Wallace; Virginia, T. D. Cunningham; West Virginia, G. Baird; Wisconsin, E. P. Russell; United States Army, B. A. Clement; United States Navy, E. Eversfield.

The committee then retired to prepare their report.

RECOMMENDATIONS FOR MEMBERSHIP.

Dr. J. B. Johnson, Chairman of the Committee of Arrangements, recommended a number of gentlemen for membership.

Dr. Dix, of Illinois, moved that the names of members by invitation be referred back to the committee.

Carried.

ARRANGEMENTS OF SECTIONS.

Dr. E. L. Howard, Chairman of the Committee on Organization, read a very lengthy dissertation on the necessity of *brevity* in the "section" discussions. He suggested the appointment of sub-committees to whom should be referred all lengthy documents brought before the section.

THE NEXT ANNUAL MEETING.

An invitation was received and read, from Dr. William Brodie, asking that the Association hold its next annual meeting in Detroit, Michigan. Referred to the Committee on Nominations.

Dr. Bronson, of Massachusetts, desired that the report of the Special Committee in reference to arrangement of sections be completed. It was incomplete.

Dr. Davis moved that the report be received, and the recommendations accompanying it be adopted, except such as referred to the code of ethics.

Dr. Porter arose to a question of privilege. He said the code of ethics needed no change; we need improvement. The interruption of time by voluminous

reports worked mischief to the organization. Who reads them? He conceived we wanted improvement in this behalf. We must not make a mountain out of a mole-hill. (Gentle stamping upon the floor, which finally culminated in thunders of applause (?), so that the speaker could not proceed.)

The President suggested that the speaker had exhausted the allotted time for discussion.

Dr. N. S. Davis offered, as an amendment to the by-laws, the following document:

"XI.—JUDICIAL COUNCIL.

"A Council, consisting of twenty-one members, shall be appointed by the Nominating Committee, whose duty it shall be to take cognizance of and decide all questions of an ethical or judicial character that may arise in connection with the Association. Of the twenty-one members of the Council first appointed, the seven first named in the list shall hold office one year, and the second seven named shall hold office two years. With these exceptions, the term of office of members of the Council shall be three years, seven being appointed by the Nominating Committee annually.

"The said Council shall organize by choosing a president and secretary, and shall keep a permanent record of its proceedings. The decisions of said Council on all matters referred to it by the Association shall be final, and shall be reported to the Association at the earliest practicable moment.

"All questions of a personal character, including complaints and protests, and all questions on credentials, shall be referred at once, after the report of the Committee of Arrangements, or other presentation, to the Judicial Council, and without discussion."

Dr. Davis also offered, as an addition to the code of ethics, section twelve, proposing to add addresses, and that three members be annually appointed to deliver addresses on medicine, obstetrics, and diseases of women and children, no address to occupy more than forty minutes in its delivery.

On motion, these documents were laid on the table, and the original report of the committee was adopted.

The following letter from Dr. Gross, of Philadelphia, was read by the Secretary:

"PHILADELPHIA, May 1, 1873.

"DR. LOGAN, *President American Medical Association:*

"MY DEAR SIR,—It is a source of deep regret to me to be unable to attend the coming meeting of our Association. The continued ill health of Mrs. Gross prevents me from leaving home for so long a time as such an absence would necessarily involve. I can think of no greater pleasure than that of shaking hands with you and the rest of our old comrades in the service of the Association and the general interests of the profession. That the meeting, under your dignified and energetic presidency, will be an uncommonly harmonious one, there can be no doubt, and I pray God that no outside or evil influences may be permitted to mar its deliberations.

"I trust that the amendment of the constitution proposed by me a year ago will not be passed by in silence by the Association. If adopted, it could not fail to be an important improvement in our proceedings. We have had, in all conscience, enough reports during the last twenty years upon medical education and medical literature.

"I take the liberty of transmitting to you a copy of the *Philadelphia Medical Times*, containing my views respecting the re-organization of our Association. I believe that if some such plan were adopted it would greatly redound to the credit, the permanency, and the usefulness of the Association. Unless it be placed upon a better footing than it now is, and be made more of a scientific and less of a declamatory body than it has hitherto been, it is easy to foresee that it must be short-lived, and that thus the great object of its founders will be effectually defeated.

"I have the honor to be, dear Dr. Logan, very truly and faithfully, your friend and obedient servant,

"S. D. GROSS."

The Secretary read an invitation from Dr. Prewitt, resident physician of the city hospital, inviting the medical gentlemen to visit that institution during their stay in the city.

The invitation, on motion, was accepted.

Dr. Woodward, Assistant-Surgeon, U.S.A., read the following communication:

THE ORGANIZATION OF THE MEDICAL CORPS OF THE ARMY.

"*To the President of the American Medical Association*:

"SIR,—It is proposed to present, herewith, a brief statement showing that the medical staff of the United States Army has not been placed on an equal footing with the other staff corps of the army as regards rank, that they have not had the same consideration shown them in this respect as has been accorded to the navy, and that the record of services of this meritorious body of officers entitles them to the same advantages that have been granted to others.

"When the rebellion broke out, the medical staff of the army, with a total of 115 officers, had but one of higher rank than that of major, while in the Quartermaster's Department, with thirty-seven officers, five were above that rank; in the Commissary Department, with twelve officers, two were above that rank; in the Adjutant-General's Department, with fourteen officers, two were above that rank; in the Engineers, with one hundred and twenty-nine officers, there were seven; in the Pay Department, out of a total of twenty-eight, there were three; and in the Ordnance, two out of thirty-six.

"The Act of Congress of July 28, 1866, defined the 'Peace establishment of the United States,' and, re-organizing, as it did, with the view of permanence, all the various departments of the army, it might have been supposed that equal justice in the matter of rank would have been meted out to each separate branch of the staff. That this was not the case, so far as the Medical Department is concerned, is shown by the following:

"By its provisions the total number of medical officers was fixed at 217, 7 of whom were above the rank of major, or 3.22 per cent. The Quartermaster's Department was to consist of 76 officers, 17 of whom were above that rank, or over 22 per cent.; the Subsistence Department of 29 officers, 5 being above that rank, or 17 per cent.; the Adjutant-General's Department of 20 officers, 7 being above that rank, or 35 per cent.; the Engineers of 109 officers, of whom 19 were above that rank, or over 17 per cent.; the Ordnance of 64 officers, with 8 above that rank, or 12.50 per cent.; and the Pay Department of 65 officers, 5 being above that rank, or 7½ per cent. It is thus seen that the Medical Department was given a smaller proportion of officers of rank than any other staff department, being less than one-half of that granted to Paymasters, one-quarter of that in the Ordnance, nearly one-sixth of that in the Engineers' and Subsistence Departments, less than one-seventh of that in the Quartermaster's, and about one-twelfth of that given to Adjutants-General.

"The medical officer under the present law is accorded the rank of captain; after three years' service he is promoted to major by seniority, such promotion not ordinarily occurring in less than fifteen years' service; and

that is the end of his prospects of advancement, unless he may be so fortunate as to secure a medical purveyorship, which can necessarily be within the reach of but very few, those positions being but five in number, and vacancies in consequence occurring but very seldom. Not only is this a great injustice to those surgeons on the active list, but it operates still more injuriously towards those old and meritorious officers who, having given their best years to the country, become disabled by age or infirmity and are desirous of availing themselves of the privileges of the retired list. The adjutant-general, quartermaster, or engineer of thirty years' service can almost certainly retire with the rank of colonel, certainly with that of lieutenant-colonel, while the veteran surgeon is laid aside with the rank of major, and an income hardly sufficient to support his station as a gentleman, or to sustain his family.

"The Medical Department is not willing to be accorded a second place in comparison with any other arm of the service. It points with pride to its roll of honor during the last war, to the 38 of its members who were killed in action or died of wounds, to the 12 who were killed by accident in the performance of duty, to the 4 whose lives wasted away in rebel prisons, to the 73 who were wounded in battle, and to the 271 who died from the diseases and exposure of camp-life (an array of figures greater than can be presented by any other staff corps), as a proof that they were always to be found where duty called.

"Without any disposition to make an invidious comparison between the Medical Department and other staff corps, it is believed that at least as high a grade of intellect, as finished an education, as eminent scientific attainments, are required to make an accomplished medical officer as obtains in any other branch of the service. In the case of the vast majority of other staff officers this education is obtained at the expense of the government, which not only furnishes the future adjutant-general or engineer with all the advantages which a scientific school can afford, but actually pays him a handsome salary for four years before he is sufficiently accomplished to render any service therefor. Not so the medical officer. He must obtain his education at his own expense, usually spending years in college, in medical schools and hospitals, before he can hope to be sufficiently qualified to pass the ordeal of an examining board.

"The government cannot expect to obtain the best class of men in any branch of its service unless it offers them equal inducements to those found in civil life. So long as medical men of ability and good scientific acquirements have before them those high prizes which are found in private practice, just so long will they refuse to continue in the army, when no prospect is held out to them of ever rising above a certain grade, or of obtaining beyond a certain amount of income.

"The inducements to engaging in private practice are the prospect of increased income and reputation with advancing years. In the army, these are represented by rank, not only because increased rank carries with it an increase of emolument, but also because to the army officer rank is well and properly understood to enhance the dignity of the person holding it, as well as the respect in which he is held by his compeers and subordinates.

"The rank of medical officers should, therefore, be no less than that of the other staff corps; they require an equal education and equal abilities, they perform equally arduous duties, they sustain as great responsibilities, they are exposed to like dangers, and in the distribution of the rewards of the military career they should be entitled to an equal share. That they are not at present on this footing of equality has been clearly shown in the foregoing comparisons.

"The principles here urged have already been recognized in the recent legislation for the Medical Department of the navy, by which fifteen medical officers were given the relative rank of captain, and fifteen that of commander, corresponding to the rank in the army of colonel and lieutenant-colonel respectively. It is held that no good reason exists why similar promotion should be withheld from the army surgeons, when its necessity has been acknowledged by law for their brethren in the navy.

"The British War Office has likewise recognized the importance of increased rank for its medical officers in the new 'Army Medical Warrant,' and has acknowledged the force of the positions taken in this paper by giving such rank in recognition of long and faithful service.

"A further injustice has been done not only to the medical staff, but to the profession at large, by the legislation which at present forbids any promotions or new appointments in the Medical Department. To the former, because, from the rapid depletion which ordinary casualties make in its ranks, it throws increased labor upon those who remain, and necessitates the employment of physicians under contract, who, having but a temporary tenure of office, cannot be expected to be actuated by that single regard for the service which is a *sine qua non* to the faithful performance of duty. To the profession at large, for it prevents many who are desirous of entering the military service from doing so, and thus perhaps compels them to abandon a design to the accomplishment of which their education may have been especially directed. There are now sixty-one vacancies in the medical staff, fifty-three of them being in the grade of assistant-surgeon. Should promotion be restored, it would then take at least two years to fill the vacancies now existing.

"The result of the continuance of the present state of affairs will be, that many of the candidates for examination, and no doubt the most deserving, will, impatient at delay, seek other channels of usefulness.

"In view of all these facts, it is believed that an appeal made by so representative a body as the American Medical Association, numbering, as it does, delegates living in every Congressional District in the United States, would not be without its effect, and it is earnestly suggested to its members that they will take such action as may seem to them most proper, as will result in placing their professional brethren in the army on an equal footing with those of the navy, as well as with the officers of other staff corps of the army, and also to throw open once more the door for the admission of the young physicians of the country to the ranks of the Army Medical Staff.

"John M. Cuyler,
Surgeon, U.S.A.
"William J. Sloan,
Surgeon, U.S.A.
"Thomas A. McParlin,
Surgeon, U.S.A.
"David L. Magruder,
Surgeon, U.S.A.
"John Moore,
Surgeon, U.S.A.
"Charles C. Gray,
Surgeon, U.S.A.
"Josiah Simpson,
Surgeon, U.S.A.
"John F. Head,
Surgeon, U.S.A.
"Joseph B. Brown,
Surgeon, U.S.A.
"Bennett A. Clements,
Surgeon, U.S.A.

Joseph R. Smith,
Surgeon, U.S.A.
Wm. C. Spencer,
Surgeon, U.S.A.
Chas. R. Greenleaf,
Ass't-Surgeon, U.S.A.
Henry R. Tilton,
Ass't-Surgeon, U.S.A.
Wm. M. Notson,
Ass't-Surgeon, U.S.A.
Charles Smart,
Ass't-Surgeon, U.S.A.
John H. Janeway,
Ass't-Surgeon, U.S.A.
Alfred A. Woodhull,
Ass't-Surgeon, U.S.A.
Harvey E. Brown,
Ass't-Surgeon, U.S.A.
Alex. H. Hoff,
Ass't-Surgeon, U.S.A.

and others.

Dr. Woodward said, "Now, Mr. President, I had nothing to do with drawing up this letter, but I indorse it fully, as does also the Surgeon-General. It is understood that by the provisions of the Army Regulations we of the army are debarred from making such an appeal, but we can aid the suggestion verbally, by appealing to you, gentlemen of the Association. Any army officer, except a surgeon, can be retired in old age with a competent pay and the rank of colonel, while a medical man can only have the rank of major after twenty years of service, and may ask for a lieutenant-colonelcy at thirty years. A lieutenant-colonelcy is all we ask. I was an assistant-surgeon twelve years ago, and hold the same rank yet. I have filled my contract with the government, but it has not fully complied with its obligations. We have come up to this convention for help. Will you help us? [Loud applause.] We only ask what was done for our brethren of the Naval Medical Corps, and nothing more."

Dr. Keller, of Louisville, was in favor of asking the government for the aid required for the army doctors.

Dr. Yarnall concurred, but there was one word he wanted omitted, and that was the reference to "rebel" prisons. He wanted that to read "Confederate" prisons.

[We are informed that the change was made.—ED.]

FOREIGN REPRESENTATIVES.

The Secretary read the following appointments made by the President to represent the American Medical Association to the British Medical Association. Drs. F. G. Smith, C. Wister, J. S. Cohen, of Philadelphia; Dr. E. Warren, of Baltimore; Dr. C. L. Ives, of New Haven; Dr. Edward Montgomery, of St. Louis; and Drs. F. Barker, E. Seguin, and J. C. Hutchinson, of New York.

The Secretary stated that commissions for these gentlemen would be made out at once.

REPORT OF NOMINATING COMMITTEE.

Dr. Johnson, of St. Louis, Chairman of the Nominating Committee, made the following partial report:

Your committee suggest the following gentlemen for the various offices named:

President, Dr. J. M. Toner, District of Columbia.

First Vice-President, W. Y. Gadbury, of Mississippi.

Second Vice-President, J. M. Keller, of Kentucky.

Third Vice-President, W. C. Husted, of Missouri.

Fourth Vice-President, L. D. Warner, of Massachusetts.

Treasurer, Dr. Caspar Wister, of Philadelphia.

Librarian, William Lee.

Committee on Libraries, Johnson Elliott.

Secretary, Theodore A. McGraw.

Committee on Arrangements, Dr. Brodie, Chairman; James A. Brown, Morse Stewart, J. F. Noyes, E. W. Jenks, Henry F. Lyster, D. O. Farrand, Eugene Smith; all of Detroit.

Committee on Prize Essays, Drs. J. K. Johnson, A. Sager, H. Hitchcock, of Detroit; E. Andrews, Illinois; E. S. Gaillard, Kentucky.

Committee on Publications, Drs. F. G. Smith, W. B. Atkinson, D. Murray Cheston, of Pennsylvania; William Lee, District of Columbia; Caspar Wister, Pennsylvania; H. F. Askew, Delaware; Alfred Stillé, Pennsylvania.

Detroit was named for the next annual meeting of the Association.

The report was adopted.

REPORTS OF COMMITTEES.

The following is an abstract of the report of the Committee on

MEDICAL EDUCATION.

"There is much dissatisfaction on the subject of medical education. The administrative agencies are responsible for the failures. In this country education took the typical form some years ago, which still prevails here. That event was in contrast with similar schools in other countries. General education enters largely into the usefulness of medical knowledge. The low rates of tuition are attributable to competition. As education is developed, more remunerative prices will be obtained. We have a right to expect that the schools shall be elevated to the lights of the day. Teachers should give their students every facility for medical advancement. By recognizing the fact that we have the true modes of teaching, it will show that this association is a tribunal before which these questions should be considered." Report referred to Committee on Publication.

MEDICAL LITERATURE.

Dr. Yandell read the following report, submitted by Dr. Flint, who was absent. (We give only a synopsis.)

"The growth of the medical literature of the United States in twenty-five years, since the organization of this Association, must be gratifying to all interested. At the present time we are independent of the world, as regards medical literature. For fulness and clearness, our works will compare favorably with those of our brethren abroad. The rivulet which once constituted our literature is now expanded into a torrent. In this brief report we shall confine ourselves to the productions of our own country. It is profitable to take a survey of these works. No one will deny there are some faults about them, but journalism of a medical character is rapidly improving, and will continue to improve. Several journals have been drawn off, but their places have been more than supplied. They have a vigorous support, and give a wide diffusion of medical knowledge. The redundancy of this literature acts beneficially on our profession; but the complaint is, there are too many medical publications to render them perfect. There should be a less number, and the editors should be well qualified. Like the actor on the stage who is to conduct the snow-storm scene, if his white paper gives out he is compelled to snow brown paper. The contributions are too few, and many of little merit. The editors cannot spare time to revise all these ill-written contributions. They have a right to insist that their communications shall be somewhat correct.

"The department of review has been sadly neglected, and the notices are made up of useless articles.

"The original contributors are desirous of fame, and therefore should seek to let their light shine properly.

"Notwithstanding these necessary defects, our journals are not despised, and many of them are gaining enviable notoriety. Few have betrayed a partisan character. We seldom meet with one that offends against decency. Personalities are eschewed. Much of the improvement must come through the editors. As their profits increase, so will the matter of their publications improve.

"Contributors have much to do with producing this improvement. They should compose their articles with care and earnestness, and write them out clearly and concisely, and practice will make perfect in that as in any other branch.

"The Southern cities entered upon the publication of this style of literature only a few years since, but their improvement has been marked and rapid.

"The fifth edition of Dr. Gross's great work on surgery has been published within the last twelve months, and others have followed in his wake.

"We must close this report. The merits of these works have been widely declared through our medical

journals. The facilities of authorship will increase with the growth of our country, and writers on medicine will spring up all over the country, until there shall be no lack of excellent works."

Referred to Committee on Publication.

COMMITTEE ON PRIZE ESSAYS.

Dr. John S. Moore, Chairman, said, "We have to report the reception of but one essay, and that not worthy of any prize offered by the Association."

COMMITTEE ON PUBLICATION.

The Committee reported "that, after the delay necessary, the twenty-third volume of proceedings, of 1872, was put in the hands of the printers, and we trust it has given satisfaction. These delays were caused by the great amount of written documents, which, as a whole, were ill prepared. We would recommend, therefore, that those submitting documents should prepare them carefully."

Report received, and referred to the Committee on Publication.

TREASURER'S REPORT.

The Treasurer reported that only a small balance remains in the hands of the Treasurer, and, if additional aid is not given, the proceedings of this year's session cannot be published.

Referred to the Committee on Publication.

Dr. J. M. Toner, of Washington, D.C., submitted statistics of hospitals in the United States in 1872–73, derived from replies to inquiries made by the United States Bureau of Education.

A motion was made that these statistics be embodied in the report of annual proceedings.

The Secretary moved their reference to the Committee on Publication, with discretionary power. Adopted.

IN MEMORIAM.

The Secretary then read an obituary letter on the death of Dr. Samuel Henry Dickson, which, on motion, was engrossed on the minutes of the Association for future reference.

Dr. Peck, of Iowa, introduced the following resolution:

"In view of the fact that the reports of the Surgeon-General of the United States Army, as exhibited in volumes one and two of the first part of the Medical and Surgical History of the War of the Rebellion, have received a too limited circulation, by reason of an insufficient issue of the same by Congress; therefore,

"*Resolved*, That the President and Secretary of this Association be directed to petition Congress at the next session in behalf of the profession, asking that the edition recently issued be reproduced in sufficient number to permit of general distribution to the members of the profession throughout the country.

"*Resolved*, That the thanks of this Association are due and are hereby tendered Congress for aiding thus far in developing and presenting to the profession reports of the Surgeon-General, as herein specified.

"*Resolved*, That the thanks of this Association are hereby tendered the officers of the United States Army who have, by sacrifice and labor, been instrumental in placing before the profession the valuable information contained in volumes one and two of the first part of the Medical and Surgical History of the War of the Rebellion."

Carried unanimously.

THIRD DAY.

The Convention was called to order promptly by the President, and at once proceeded to business.

On motion, Dr. Chas. J. O'Hagen was added to the list of foreign delegates.

A letter was received by Dr. John S. Moore from Dr. Paul F. Eve, of Nashville, Tennessee, regretting the necessity for his absence from the Convention.

NOMENCLATURE OF DISEASES.

The Chairman of the Committee on Nomenclature of Diseases submitted the following report:

"In accordance with the resolutions appended to the minority report of the committee, adopted by the Association at its last meeting, one thousand extra copies of the proposed nomenclature were printed in pamphlet form, and distributed to the profession and to the various medical journals, both at home and abroad; and such criticisms and suggestions as would represent their opinions as to its merits and fitness were invited from those receiving it. To this invitation not a single response has been made by medical journals, and but two from practitioners, the latter being such additions as in the judgment of these gentlemen would render the work more complete, but which in the judgment of the majority describe conditions which none but a specialist could recognize. From this statement of the results of a year's consideration of the proposed nomenclature, the conclusion may be drawn that the profession are satisfied with the work. Your committee are not willing to entertain the only other conclusion, that men of culture and practical men are indifferent upon a subject of such importance; they therefore again present the resolution appended to the majority report, and ask for its adoption:

"*Resolved*, That the report of the Committee on the Nomenclature of Diseases be referred to a special committee of five members, to be appointed by the President, who shall examine it and report upon its final disposition, at the present meeting of the Association.

"*Resolved*, That on the favorable report of such committee it shall be referred back to the Committee on the Nomenclature of Diseases, for the preparation of an index to be published with it in the forthcoming volume of the Transactions."

The Secretary moved the adoption of the report.

Dr. Woodward opposed the adoption of the report, and gave in detail his reasons therefor. He then offered the following

RESOLUTIONS:

"*Resolved*, That in the opinion of this Convention it is inexpedient to adopt the nomenclature and classification presented by the majority of the Committee on Nomenclature at the meeting in Philadelphia.

"*Resolved*, That a committee of three be appointed by the President, whose duty it shall be to communicate the foregoing resolution to the proper committee of the Royal College of Physicians of London, and to negotiate for the representation of the American Medical Association in the first decennial revision of their nomenclature."

REPORT OF COMMITTEE ON NOMINATIONS.

The Committee on Nominations, to whom was referred the subject of permanent membership, reported, through their Chairman, Dr. J. B. Johnson, the following names for admission to the Association:

"Edwin Stewart, Mendon, Michigan; G. L. Polk, Æola, Illinois; T. W. Hollowbush, Warsaw, Illinois; John Shore, St. Louis; Wm. Van Zant, St. Louis; Daniel Lichty, Rochelle, Illinois; B. F. Edwards, Kirkwood, Missouri; L. A. Grimes, Lewis county, Missouri; C. W. Crary, St. Louis; L. T. Newman, St. Louis; George F. Center, Olney, Illinois; Drs. R. J. Mitchell,

Lewis Wilcox, R. J. Allmond, W. C. Day, R. T. Cowan, and Edwin Blakesley, all of Illinois; John E. Faber, St. Louis; Dr. Randall, Illinois; Dr. Vinnedge, Lafayette, Indiana; Charles N. F. Ludwig, St. Louis."

On motion, the report was adopted.

Dr. Toner, of the District of Columbia, presented the following resolution in regard to an

INTERNATIONAL MEDICAL CONGRESS.

"*Resolved*, That, in the opinion of this Association, it would be an excellent opportunity, at the American Centennial in 1876, for an International Medical Congress to consider, and, if practicable, to adopt, a uniform classification and nomenclature of diseases, to be used by the profession throughout the world."

The Secretary reported the reception of a letter from Dr. H. R. Storer, which, on motion, was referred to the Committee on Nominations. The letter requested the appointment of a committee to compare the American and foreign winter cures.

REPORT OF COMMITTEE ON ETHICS.

"The Committee on Ethics, of 1872, report in relation to the case of Paluel de Marmon, against whose admission as a delegate to the meeting at Philadelphia, last year, a protest was entered, as follows:

"Dr. De Marmon held credentials as a regular delegate from the Westchester County Medical Society in New York, to the meeting of the Association in 1872. But at that meeting a protest against his admission was made, on the ground that he was on trial for unprofessional conduct in his local society. The subject was referred to this committee at so late a period of the meeting that it could not then be acted upon. From the evidence recently presented to our committee, it appears that the trial of Dr. De Marmon is still unfinished in the Westchester County Medical Society; that said society has formally withdrawn his credentials as delegate to this Association, and consequently no present action in the matter is required by this Association."

Adopted.

REPORT OF PATHOLOGICAL COMMITTEE.

"At a meeting of the Association in Philadelphia, May, 1872, objections were made to the admission of delegates from the Pathological Society of Berks county, Pa., on the ground of non-professional conduct on the part of many of the members of that society. Time not permitting a full hearing of the case during that meeting of the Association, a report on it was postponed until the present meeting of the Association. In the mean time the accused parties were duly notified of the charges, and requested to make answer thereto. After a full investigation of the case, your Committee on Ethics, appointed in 1872, declare a sufficient number of the charges sustained to justify the recommendation that the said society be not allowed a representation in this Association."

Adopted.

COMMITTEE ON SALARIES.

The committee appointed at the last meeting of the Association in regard to the payment of a regular salary to the President and Secretary, made their report upon the resolution then introduced to make the pay of each of the above-named officers $1000 per annum. The committee did not urge the adoption of the resolution as it stood, but left it to the Convention to determine the question.

Dr. Keller, of Louisville, Kentucky, submitted the following resolution as a substitute for the former one:

"*Resolved*, That the sum of $500 be appropriated as an honorarium for the services of the Permanent Secretary during the present year, provided such an amount remains in the treasury after paying necessary expenses."

Adopted.

A NATIONAL SANITARY BUREAU.

Dr. Bell, of Brooklyn, New York, offered the following resolutions:

"*Resolved*, That, in the judgment of this Association, the establishment of a National Sanitary Bureau, with relations to the general government similar to those of the Bureaus of Agriculture and Education, is highly desirable as a means of promoting sanitary science and the protection of the public health.

"*Resolved*, That the Association request of the United States Educational Bureau to so extend the scope of its inquiry as to include vital diseases and mortuary statistics in relation to local, meteorological, and geological influences, and to disseminate the information so collected throughout the country."

The resolutions of Dr. Bell were, on motion, referred to the Committee on State Medicine and Public Hygiene.

Dr. M. A. Pallen offered the following substitute:

"*Resolved*, That Congress be memorialized to create a Sanitary Bureau, and that it be under the control of the Surgeon-General of the United States Army."

Dr. Bell said the resolution of Dr. Pallen would not meet the ends desired. It would have to go through the circumlocution offices at Washington, and it would be years before anything could be accomplished. He was opposed to the substitute, which was lost.

REPORT OF COMMITTEE ON THE CINCHONA-TREE.

"The committee appointed by the American Medical Association to memorialize Congress on the cultivation of the cinchona-tree in the United States, beg leave to present the following report:

"The memorial which was prepared by your committee and endorsed by the Association was duly presented in Congress and referred to the Committee on Agriculture. No further action appears, however, to have been taken upon it.

"Your committee, however, has not been idle, as will be seen by the following facts:

"A committee was appointed by the Medical Society of the State of California, at their annual meeting in 1870, to address the Legislature of California and petition that honorable body to appropriate suitable lands for the purpose. Drs. A. B. Stout and T. M. Logan were the committee selected. These gentlemen prepared a bill, which was introduced near the close of the last session of the Legislature. Owing to the fact that this bill was introduced so late in the session, it was not passed. A very favorable feeling was expressed towards the matter, however, and your committee have no doubt that a similar bill will be introduced and the lands granted.

"In the mean time, the chairman of your committee had opened a correspondence with the Hon. Mr. Watt, Commissioner of Agriculture. Mr. Watt gave assurance of his cordial co-operation in this matter, and has promised to supply whatever seeds may be desired.

"A correspondence has also been carried on between the Commissioner of Agriculture, the State Medical Society of California, and a certain F. A. C. Grebner, who has had fourteen years' experience in the cultivation of this plant in Java, and who is willing to assist in the introduction of the plant into this country.

"In accordance with these facts, a second memorial

has been prepared for presentation to Congress, which is herewith presented.

"Bearing in mind the fact that, although Dr. Royle drew the attention of the British government to the importance of this matter and earnestly urged their action as early as 1839, it was not until twenty years thereafter that the first step was taken in what has proved to be so successful an undertaking as the cultivation of cinchona in India; and, knowing that this matter is already receiving favor here, your committee feel that their efforts have not been entirely useless.

"Your committee would further suggest that, since Dr. Antisell has been appointed upon a commission which will compel his absence from the United States for some years, and will prevent his co-operation with the other members of the committee, the name of Dr. A. B. Stout, of San Francisco, be substituted for his, and that the committee as thus constituted be continued.

"*To the Honorable Senate and House of Representatives of the United States of America:*

"*Whereas*, The American Medical Association, composed of delegates appointed from the State, County, and local Medical Societies throughout the whole United States, constituting therefore the highest medical authority of the country, presented to Congress nearly two years ago a memorial in which they asked Congress for the appointment of a commission of scientific men to determine certain points in connection with the cultivation of the cinchona-tree in the United States; and,

"*Whereas*, Some of these points have already been determined by other experiments in this direction, and the Department of Agriculture is prepared to furnish any needed quantity of the seeds; and,

"*Whereas*, The cultivation of this tree has already been successfully tried on a large scale by the English and the Dutch governments, and the American Medical Association believe that its cultivation by this government would be productive of a very considerable revenue, provided that a proper soil and climatic conditions exist in the United States, which conditions the Committee of the Association are convinced do exist:

"Therefore, The American Medical Association would, through its committee, again respectfully ask the appointment by Congress of a commission of scientific men 'to determine what portion, if any, of the public domain of the United States will produce cinchona, and which may be set apart for the purpose.'

"For the Committee:

"LEMUEL J. DEAL, M.D., Chairman,
"1103 Vine Street, Philadelphia.
"THOMAS M. LOGAN, M.D.,
"Sacramento."

SUGGESTIONS ON MEDICAL EDUCATION.

The hour of eleven having come around, special business was in order, and the report of the special committee was called, to present suggestions on the subject of medical education.

MEDICAL EDUCATION.

Dr. Pollock, of Pittsburg, read the following report:

"The committee appointed by the President, at the last meeting of the Association, to take into consideration the propriety of adopting the suggestions of the Committee on Medical Education, are fully impressed with the importance of the subject, and acknowledge the value of the suggestions offered. But we believe it wholly impracticable to carry into operation any law which does not meet the hearty approval of diverse interests connected with the teaching and practice of medicine; and while we have no doubt that this Association has grown to be a power in the profession, felt and recognized by all, yet to make this power effective its decisions should be calm and deliberate. Therefore, your committee, after due deliberation, have concluded to recommend the adoption of the conclusion of the report of the Committee on Medical Education, which is as follows: That a Congress, composed of two members from each State and Territory, and one from each recognized medical college, all to be members of this Association, be appointed (or nominated by the Nominating Committee) at this present session. That said committee, or congress, shall meet three days previous to our next annual meeting, and that said committee, or congress, shall perfect a plan for some uniform system of medical teaching, which, when adopted by the Association, shall be the only recognized method of medical teaching in the United States."

This report led to a somewhat lengthy and animated discussion. First it was adopted by a close vote; then a motion was made to reconsider the vote, which was done. Then a motion was made to lay it on the table; then that motion was withdrawn.

Dr. Keller, who had seconded the motion to lay it on the table, contended that the gentleman who made the motion had no right to withdraw it without consent of the second. He did not consent, but insisted on the motion to lay the report on the table. The motion was put by the chair and the report laid on the table by the Convention.

Dr. Yandell was opposed to the clause of the report which referred to the election of one from each medical college by the Nominating Committee. With that exception he would be in favor of the adoption of the report.

Dr. Brodie, of Massachusetts, thought there were other objections to the report, and that it was a usurpation of authority.

Dr. Davis thought the gentlemen were out of order, and asked the chair to enforce the rules.

THE CARRIAGE-RIDE.

Dr. M. A. Pallen gave notice of the contemplated trip to Tower Grove (Shaw's Garden) this afternoon, and notified those wishing to participate that carriages would be in waiting in front of the hall from half-past one until two o'clock P.M., at which time they would start.

MARINE HOSPITAL SERVICE.

The amendment to the constitution of the Medical Association, as to its relations with the United States Marine Hospital service, proposed by Dr. Hartshorne, of Philadelphia, at the last annual session of the Association, was brought up and referred to next year's meeting. Its purpose is to place the United States Marine Hospital Service in the same relative position in the American Medical Association as the Medical Departments of the United States Army and Navy.

The following

VOTE OF THANKS

was offered by Dr. Angier:

"*Resolved*, That we hereby tender our sincere thanks to Colonel and Mrs. J. L. D. Morrison for the hospitalities extended to, and so greatly enjoyed by, this Association last evening."

REPORT OF SPECIAL COMMITTEE.

The committee appointed to devise and recommend some plan for securing a more complete report of the doings in the several sections of the Association, respectfully report the following resolutions, and recommend their adoption:

"*Resolved*, 1. That the Committee of Arrangements for each annual meeting of the Association are instructed to secure the services of a sufficient number of stenographic reporters to have one in attendance on the regular sessions of each of the sections in the afternoon as well as during the general morning sessions; that the reports thus obtained be printed the same evening on slips or proof-sheets, in sufficient number to supply all the members of the Association in attendance early the following morning.

"*Resolved*, 2. That the necessary expenses incurred in carrying into effect the foregoing resolution shall be paid from the treasury of the Association in the same manner as other bills relating to the publication of the transactions.

"*Resolved*, 3. That the acting secretary of each section shall keep a file of so much of the reports as may relate to the business of the section to which he belongs, and it shall be his duty to revise the same, carefully eliminating therefrom all that is unimportant, and arranging that which is found valuable and pertinent in proper form; he shall transmit the same to the Permanent Secretary, for the Committee of Publication, within twenty days after the adjournment of each annual session of the Association."

The report was adopted.

Dr. E. L. Howard offered the following

RESOLUTION.

"*Resolved*, That the chairmen of the various sections shall have free scope in the selection of subjects for addresses.

Adopted.

THE COMMITTEE ON ETHICS

reported that the papers necessary to complete the report had not been furnished them until too late for to-day, and they were not ready to report.

The Secretary moved that the next annual meeting of the Association be held on the first Tuesday in June, 1873, at Detroit.

SECTION BUSINESS.

Dr. Davis thought more attention should be paid to the sections, and that strict attention should be paid to their orders of business. There should be a bulletin-board placed upon the stage, designating the day's business; but, despite all he could say, every year there has been blunder after blunder in the sections. The rooms for sections have not been proper ones. Now, at this session, the thing has been greatly improved, and the following are

CHAIRMEN AND SECRETARIES OF SECTIONS FOR 1874.

1. *Practice of Medicine. Materia Medica, and Physiology.*—Dr. N. S. Davis, of Chicago, Chairman; and Dr. Frothingham, of Ann Arbor, Michigan, Secretary.

2. *Obstetrics and Diseases of Women and Children.*—Dr. Theophilus Parvin, of Indianapolis, Chairman; and Dr. Montrose A. Pallen, of St. Louis, Secretary.

3. *Surgery and Anatomy.*—Dr. S. D. Gross, of Philadelphia, Chairman; and Dr. Alonzo Garcilon, of Maine, Secretary.

4. *Medical Jurisprudence, Chemistry, and Psychology.*—Dr. A. N. Talley, of South Carolina, Chairman; and Dr. E. L. Howard, of Maryland, Secretary.

5. *State and Public Hygiene.*—Dr. A. N. Bell, of Brooklyn, Chairman; and Dr. A. B. Stuart, of Winona, Minnesota, Secretary; F. A. Ross, Alabama; D. A. Linthicum, Arkansas; T. M. Logan, California; R. G. Buckingham, Colorado; B. H. Catlin, Connecticut; L. P. Bush, Delaware; F. Howard, District of Columbia; N. F. Westmoreland, Georgia; H. A. Johnson, Illinois; W. H. Myers, Indiana; J. J. Angier, Iowa; D. W. Stormont, Kansas; L. Rodgers, Kentucky; S. Fitch, Maine; James Stewart, Maine; H. J. Bowditch, Massachusetts; R. C. Kedzie, Michigan; A. B. Stuart, Minnesota; J. W. M. Shattuck, Mississippi; John M. Hodgden, Missouri; J. H. Parsons, New Hampshire; E. M. Hunt, New Jersey; A. N. Bell, New York; U. A. B. Norcon, North Carolina; Wm. Clendenin, Ohio; A. M. Pollock, Pennsylvania; G. M. Lenore, Rock Island; R. A. Kinloch, South Carolina; W. K. Briggs, Tennessee; D. R. Wallace, Texas; J. L. Cabell, Virginia; James Bromfield, West Virginia; H. B. Strong, Wisconsin; A. F. Woodward, Vermont; S. M. Bemis, Louisiana.

Resolved, That the Secretary of the Association be authorized to fill up all vacancies in the Committee from the States and Territories.

Also, that Dr. A. N. Bell be President, and Dr. A. B. Stuart Secretary.

COMMITTEE ON NECROLOGY.

Chairman, Dr. A. Sager, Ann Arbor, Michigan, and Committee remain as last year, excepting Dr. Alonzo Garcilon, of Maine, in place of Dr. D. M. Reese, deceased; Dr. W. McCabe, Kansas; J. W. H. Baker, Iowa; J. H. Wheeler, New Hampshire; —— Milligan, Minnesota; W. M. Chambers, Illinois; G. Sutton, Indiana; A. J. Lands, Georgia; B. A. Vaugh, Mississippi; George Mitchell, Ohio; J. J. Woodward, U.S.A.; N. M. Dodson, Wisconsin; L. P. Yandell, Sen., Kentucky.

JUDICIAL COMMITTEE.

Three years.—Dr. Brodie, Michigan; N. S. Davis, Illinois; E. L. Howard, Maryland; Wm. O. Baldwin, Alabama; —— Dean, New York; J. P. Logan, Georgia.

Two years.—L. S. Joynes, Virginia; R. N. Todd, Indiana; —— Askew, Delaware; J. E. Morgan, District of Columbia; Samuel Lilley, New Jersey; S. N. Benham, Pennsylvania; Dr. Dunlap, Connecticut.

One year.—Drs. Bartlett, Wisconsin; Powell, Illinois; Gale, Kentucky; Moses, Missouri; Hughes, Iowa; Bemis, Louisiana; Cheever, Massachusetts.

SPECIAL COMMITTEE.

Dr. H. R. Storer, Boston, Massachusetts, Chairman of Committee to report on American as compared with foreign winter cures.

The report was adopted by the Association *in toto*.

FOURTH DAY.

At half-past nine o'clock, Dr. Logan, President of the Association, called the delegates to order.

PUBLIC HYGIENE.

The Secretary announced that Dr. A. B. Stuart, of Minnesota, resigned the chairmanship of the Section on State Medicine and Public Hygiene, and desired that Dr. Hewett, President of the Minnesota State Board of Health, be appointed in his stead.

Referred to the Committee on Nominations.

RAILROAD ACCIDENTS.

A resolution was passed that Dr. W. F. Peck, of Davenport, Iowa, be appointed a committee to report upon the treatment of injuries from railroad accidents.

PATENT NOSTRUMS, ETC.

Dr. Matchet, of Texas, wanted a committee of three from each State appointed to report at the next annual meeting on the indigenous medical resources of their respective States.

He also offered a resolution in regard to the use of patent medicines and alcohol, which, after brief discussion, was laid on the table.

Dr. Middlekamp, of Warrenton, Mo., proposed the following:

"*Whereas*, The prevalence of the abuse of alcohol has become alarming in the United States, and nine-tenths of the crime committed is owing thereto;

"*Resolved*, That a committee be appointed by the President, of one member from each State, to investigate the effects of intemperance, and report, at the next meeting of the American Medical Association, the proper means to be taken on this subject."

Laid on the table by a decided majority.

AMENDMENT TO THE CONSTITUTION.

Dr. Pollock, of Pennsylvania, proposed the following amendment to the constitution:

"In article VI., line four, the word five be stricken out, and the word ten be inserted, so as to read, 'funds may be obtained by an equal assessment of not more than ten dollars annually on each of the delegates and permanent members,' etc.

"By-laws, article V., strike out the word five and insert the word ten, so as to read, 'the sum of ten dollars shall be assessed annually upon each delegate to the sessions of the Association, as well as upon each of its permanent members.'"

Laid over for one year, under the rules.

DR. HAMMER'S CASE.

The majority of the Committee on Ethics, through Dr. Davis, reported as follows on the protest of the St. Louis Medical Society against the registration of Dr. Adam Hammer, of St. Louis, as a permanent member of the American Medical Association.

"That, after due investigation and the hearing of both parties, it appears that, about one year since, Dr. Adam Hammer was regularly arraigned and tried by the St. Louis Medical Society, of which he was a member, on the charge of violating the code of ethics. After an apparently full investigation, he was declared guilty of the charges, and at a subsequent meeting he was suspended from membership for five years, or until reinstated by a vote of the Society. From this decision of the Society the suspended member appealed to a civil court for legal process to compel the Society to reinstate him. The judge of the court decided that the charter of the Society gave it no authority to take cognizance of any personal assaults or controversies between its members, and issued a peremptory mandamus requiring the Society to rescind its vote suspending Dr. Hammer, and to restore him to his rights of membership. Under this compulsory legal restoration to membership in the St. Louis Medical Society, Dr. Hammer claims the right to be registered as a permanent member at this meeting of the Association. After due consideration, it appears clear to a majority of the members of your committee that the mandamus of the civil court has no other effect than simply to prevent the St. Louis Medical Society from enforcing any penalty against one of its convicted members, and does not in any degree affect the fact that he still stands convicted of having violated an important provision in the code of ethics. The constitution of this Association, in the clause defining who shall be *permanent members*, states 'that permanent members shall consist of all those who have served in the capacity of delegates, and of such other members as may receive the appointment by unanimous vote, and shall continue such so long as they remain in good standing in the body from which they were sent as delegates.'

"Inasmuch as Dr. Hammer still stands convicted of a violation of the code of ethics by the St. Louis Medical Society, and said Society is restrained from inflicting the penalty it has adjudged proper for the offence solely by the interference of a civil court, it cannot be claimed that he now remains in *good standing* in that Society.

"Therefore your committee is of the opinion that Dr. Hammer ought not to be received as a permanent member of this Association at its present meeting."

Signed by Drs. N. S. Davis, H. F. Askew, and D. W. Yandell.

Dr. E. L. Howard made the following minority report:

"The undersigned reluctantly dissents from the report of the majority of the Committee on Ethics in the case of Dr. Hammer, on the following grounds:

"The only question before the committee is, Shall Dr. Hammer be permitted to register as a permanent member?

"The constitution of this Association says, 'The permanent members shall consist of all those who have served in the capacity of delegates, and of such other members as may receive the appointment by unanimous vote, and shall continue such so long as they remain in good standing in the body from which they were sent as delegates, and comply with the requirements of the by-laws of the Association.'

"It appears that Dr. Hammer is still a member of the St. Louis Medical Society, with all the rights and privileges of any other member of that body. The undersigned holds that the committee have no right to examine the case beyond this record.

"*Resolved*, That the name of Dr. Hammer be ordered entered as a permanent member of this Association."

Dr. Hammer maintained that, being accused, he was entitled to a hearing; but he was cut off by the "previous question," when the majority report was adopted by a large vote.

VOTE OF THANKS.

On motion of Dr. Bronson, the following vote of thanks was unanimously passed:

"The American Medical Association, now about to adjourn, would prove derelict in duty and appreciation did it not honor itself by an acknowledgment of the obligation under which it has been placed by the profession, the Committee of Arrangements, the Press, Colonel Morrison, Henry Shaw, Esq., and other citizens of St. Louis, by Dr. Woodward, of the U. S. Army, for the elaborate scientific dissertation delivered last evening under the auspices of the Toner fund, established by Dr. Toner, of the District of Columbia, for initiating a lecture-course of a scientific character; and, last but not least, by the President and other officers of this Association, for the dignified, able, and impartial manner in which they have performed the functions of their offices. Therefore,

"*Resolved*, That the thanks of this Association be extended to each and all of the aforesaid, and that this vote be placed upon our minutes."

Dr. J. A. Alexander, of Virginia, was added to the Committee to represent the United States at the next session of the English Medical Association.

Dr. Frederick Horner, Jr., of Virginia, offered some resolutions condemning the too free medicinal use of alcohol, which were referred to the Committee on Public Hygiene and State Medicine.

FROM THE SECTIONS.

The sections on Surgery, Practice of Medicine, Physiology, Hygiene, etc., reported their minutes and papers, which were referred to the Committee on Publication.

REPORT FROM THE NOMINATING COMMITTEE.

The Nominating Committee made the following report finally:

"The Committee recommend that the nomination of the Committee from the thirteen original States be deferred to the next annual meeting of the Association.

"The Committee request the Convention to reconsider its action in the appointment of Dr. Myers, of Indiana, as a member of the Committee on Hygiene and State Medicine, and that the name of Dr. James F. Hibbard, of Indiana, be substituted.

"The Committee also nominate Dr. W. O. Smith, of Newport, Kentucky, as Chairman of a special committee on puerperal fever."

The report was adopted.

Shortly after eleven o'clock Dr. Logan made his farewell address, and declared the session closed.

[The foregoing report has been arranged with much care from the daily papers of St. Louis.—ED.]

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

A CASE OF CYSTIC KIDNEY WITH IMPACTED CALCULI.

Reported by G. WILDS LINN, M.D., Resident Physician.

MICHAEL W., 75 years of age, was admitted to the hospital March 14, 1873. He then complained of having been ill about two months, saying that he had always been a healthy man previous to that time. When admitted he was tremulous, and complained of chilliness; his lower extremities were much swollen, and purpuric spots were found over the whole surface of the body except the head and face. His urine was found to be opaque, had a reddish-white color, and contained a small quantity of albumen. Microscopic examination revealed a large number of pus-corpuscles with a few red blood-disks and a considerable amount of pigment-matter, but no tube-casts. He complained of no pain; his appetite was good, and he walked about the hospital and to his meals without difficulty. Under treatment the purpuric spots rapidly grew fainter, and the œdema soon disappeared. One week from date of admission his urine had lost its reddish hue, presenting a milky appearance, and on standing gave a heavy white opaque deposit. On examination a small quantity of albumen was found, only sufficient to cover the bottom of the test-tube, and due, probably, entirely to the presence of large numbers of pus-corpuscles, which could still be seen under the microscope. He then grew suddenly much worse, and died on the 27th. I made a post-mortem examination, and on opening the abdomen found a large mass, apparently of fat, fourteen inches long and four inches in diameter, extending from the region of the left kidney and downwards into the pelvis. I removed the mass entire, and upon section found within it a sac, evidently developed from the pelvis of the kidney, ten inches in length and two and a half inches in diameter. Within the sac were five calculi, partly imbedded in its walls, and surrounded by a purulent fluid several ounces in quantity. The largest of the calculi measured four inches in length and one and a half inches in diameter, and weighed four and a half ounces. The next in size measured three inches in length and one and three-quarter inches in diameter, and weighed three and one-fourth ounces. At the upper portion of the mass, where a part of the normal structure of the kidney still remained, was a cyst containing urine, and measuring two and a quarter inches in diameter. The ureter was dilated to nearly three-quarters of an inch in width. The specimens, which were exhibited to the Pathological Society, have been preserved and placed by Dr. Tyson (curator) in the museum of the hospital.

KUMYS IN CHRONIC DIARRHŒA (Prof. Stern, of Vienna: *Wiener Mediz. Presse*, April 13, 1873).—Since the kumys question is fairly afloat, I believe it is the duty of every physician to contribute all in his power which may aid in throwing light on the subject: hence I have been induced to publish the following cases, which I believe contain a certain value:

1. I. K. P., 35 years old, has for four or five years shown a marked tendency towards gout. He has already gone through two attacks of this disease; the first, three and a half years ago, lasted fourteen days; the second, two and a half years ago, lasted five or six weeks. Both attacks were introduced by severe dyspepsia, the pain setting in several days after the dyspeptic symptoms had been relieved. After the first attack a diarrhœa set in, which was very hard to check. The second attack of gout was, however, followed by a still more stubborn diarrhœa. The use of Carlsbad and other systematic "cold-water" treatment so far corrected the arthritic disposition that no fresh attack has occurred. The chronic diarrhœa, however, has remained in all its violence. With care and regulation of the diet, perhaps as much as fourteen days would elapse without any diarrhœa. At the end of this time the trouble would always return with its old violence. As long a period of freedom from the diarrhœa as from two to three weeks could be obtained by drinking constantly red wine and the use of the "cold-water cure." At last even these means lost their power. I then ordered the patient to drink Stahlberg's kumys, at first a small bottle daily, then a large bottle of the strongest variety. In two weeks the patient told me that the kumys agreed with him, that his diarrhœa had ceased, and that his alvine evacuations were regular. He began this treatment in January of this year, and continued it altogether five weeks. There has been no return of the diarrhœa.

The second case is still more important. Mrs. C. S., 30 years old, has been since her childhood subject to repeated attacks of diarrhœa, which often came without any apparent cause. She was obliged to regulate her diet, and to take every precaution to prevent the recurrence of these attacks. Relief was thus obtained for short periods; but at last the attacks increased in number and intensity, until the patient often was compelled to keep her bed.

In December of the year which has just passed, she consulted me, and I advised her last January to try Stahlberg's kumys, in the same way I had ordered it to the previous patient. In this case, too, the effect was surprising. After using the kumys for four or five weeks, the diarrhœa disappeared, and from the 5th of January until now it has never returned.

IDIOPATHIC DIPHTHERITIS IN THE EXTERNAL AUDITORY MEATUS (Moos: *Archiv für Aug- und Ohrenheilkunde*, 1, 2, Abth. 86–88).—Moos observed in a boy ten years old, who had suffered repeatedly from purulent otitis media, a diphtheritic inflammation of the external auditory meatus, characterized by a firm, adherent exudation resembling fat pork (*speckiges*), which remained clinging to the meatus several days, and at last came away, after some pain and hemorrhage. The examination of the throat, the membrana tympani, and the cavity of the tympanum, gave a negative result, so that the diagnosis was rendered in favor of an idiopathic diphtheritic affection, confined to the external meatus.

C. H. B.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, MAY 24, 1873.

EDITORIAL.

STATEMENTS WHICH SHOULD BE EXPLAINED.

IN the Philadelphia *Press* of May 19, mention is made of a case of death in the Almshouse Hospital, which became the subject of investigation by the coroner. Some difficulty occurred in regard to the identifying of the body, on which a post-mortem examination had been held; and the reporter makes the following statements:

"What disposition was made of Mrs. McQuaid's remains is unknown, but it is rumored that it is customary after the dissection of vagrant subjects to boil the flesh down in a large cauldron. The bones are then collected, and, as numerous druggists of this city have constant orders on hand for skeletons, it is reported they are sold for that purpose, and that if the subject has a good head of hair, that is neatly stripped off and sold to a fashionable hairdresser.

"This bartering in dead bodies, it is said, has been carried on for a long time, and once caused the discharge of an attaché of the coroner's office. There is a law to the effect that unclaimed bodies shall be distributed among the different respectable colleges, but private physicians offer a large price, and receive nearly all of them."

The writer of the above has sheltered himself behind "it is said," "it is reported," but he knew that there was no foundation for such stories, and he knew also that they would be received by a great many of those who read them, and to whom they were repeated, as implicitly as if they were based upon the affidavits of unimpeachable witnesses. We call upon the *Press* either to withdraw or to prove these statements, which are manifestly injurious to the persons in charge at the Almshouse Hospital, and to the medical profession. If they are true, the sooner the matter is looked into the better.

THE "CREDIT GUIDE."

A FRIEND has expressed to us the opinion that the notice which we gave, in our issue for April 12, to this publication, scarcely did justice to its merits, or rather to its claims upon the profession. He says that he has it in constant use, and that in many instances it has saved him from being imposed upon by those who were willing to employ him but unlikely to pay him.

We are well aware that among the business community there are several publications of a nature analogous to this, and that they are continually referred to for the standing of parties proposing to incur responsibility in the purchase of goods. And we fully believe that the enterprise of those who have issued the "Credit Guide" deserves to be encouraged by the physicians of this city, not only by subscribing for it, but by furnishing correct information for its pages in future editions.

We do not, however, think that the profession will find that the existence of this "black list," even if known to the knavish evaders of bills, will meet the whole of the evil. Let every practitioner have a copy of the Guide, consult it when called to the case of any person unknown to him, and refuse to attend those who figure in its pages. But let him also send out his bills punctually, at short intervals, and give his patients to understand that he means to collect what is due him just as any other business man would. It is in this way that the black catalogue may be lessened, and many an account be saved which would, if not punctually sent out, take its place among our "bad debts."

CORRESPONDENCE.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES.

DEAR SIR,—In your journal of April 5 I find an excellent editorial upon "Some Sins of Druggists." The views therein expressed must meet with the approval of every candid member of our profession. If there be one unpardonable sin on the part of the druggist, we believe it is that of prescribing over his counter. Your definition of his duty is eminently fair and liberal. He has no right to assume prerogatives that do not belong to him. Permit me to cite a few of

the many instances that have fallen under my observation, in proof of this assertion.

Not long since I saw a young man enter a drug-store and address the proprietor as follows: "Doctor, I am suffering with diarrhœa, and wish you to give me something to check it." The druggist asked no questions, but immediately proceeded to put up an astringent mixture, for which he received half a dollar. Now, I maintain that this druggist defrauded a physician out of his fee, and, like yourself in the case you mention, I have endeavored to keep my prescriptions from going to that store.

On another occasion, one of my patients came to my office, in my absence, for a prescription. His case was not an urgent one. As he did not return, I called on him the next day, when he informed me that a certain druggist had prescribed for him, and he was relieved. Do not imagine that many of my prescriptions go to that store.

One day I saw a negress enter a drug-store in this city and ask for *twelve ounces* of laudanum. It was given her and paid for. After she had gone, I asked the druggist how he dared to sell a poison in that way. "Oh," he said, "I know her mistress; she takes it as you would a glass of wine. She will have it; and I might as well make the profit as to let some one else do so."

I have on many occasions heard persons ask a druggist for a good cough or diarrhœa mixture, and he would recommend the Cherry Pectoral, or some cholera nostrum, as the case might be. Now, this is all wrong, and, as you very properly remark, "the business of an apothecary is to sell drugs, either on the prescription of a physician or by the orders received from purchasers." It is not his business to laud this or to condemn that quack preparation. He has no right to compound a prescription unless it is ordered by a regular practitioner. By so doing he practises a fraud upon the profession, and detracts from the real dignity of the healing art.

Again, if a druggist be allowed to rob the physician in this way,—for by prescribing he deprives the physician of the means by which he must live,—should not the physician be permitted to vend his own medicines? And yet he would not be permitted to do so unless he first obtained a license. Such a license the druggist has; but he has no license like that under sanction of which the physician practises,—a diploma acquired by years of patient study, toil, and self-sacrifice.

But there is another sin at the door of the druggists, to which we would briefly refer. A physician gives a prescription in a certain case. It is given for that case alone. It acts well. We have not yet found the druggist who will refuse to renew that prescription as often as desired, if paid for so doing. In our own practice, a prescription was put up more than twenty times and used throughout an entire neighborhood. The druggist acknowledged this fact, and promised to comply with our request not to put it up again unless we should prescribe it. Perhaps he did so.

We are of the opinion that no prescription should be duplicated without the physician's order; and there should be an understanding to this effect between the physician and the druggist, for while the repetition of some prescriptions would be unattended with risk, that of others would be exceedingly hazardous.

Such a rule would not entail hardship upon the poorer classes, for we hold that the fees for professional services should be regulated by the ability of the patient to pay for the same, and those who are really unable to pay should be treated gratuitously.

Between physicians and druggists the most harmonious relations should obtain, for it is to them that the community must look for the means of relief when disease and death hold high carnival in our midst. The responsibility of prescribing is but little higher than that of properly selecting and compounding the remedies prescribed. The prescriber and compounder are coworkers, and they should be actuated by a real sense of the obligations devolving upon them in the discharge of their appropriate duties. One sentiment should ever unite them; it is this: How shall we best work together to promote the welfare of humanity?

Will not the American Medical Association at its next meeting appoint a committee to take this matter in hand and strive to solve the hitherto "unsolved problem"? If so, we believe that great good might be accomplished; that judicious action by such a committee would develop a far better state of feeling between the physician and the druggist than at present prevails.

I am very respectfully, etc.,

H. E. WOODBURY, M.D.

WASHINGTON, D.C., April 16, 1873.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR:—I desire, through your columns, to call the attention of the publisher to a number of singular and not very creditable errors which have crept into the American reprint of the "Half-Yearly Abstract of the Medical Sciences" (formerly known as "Ranking's") issued January, 1873. They indicate either a lamentable want of technical knowledge, or excessive carelessness, upon the part of the proof-reader.

In the Table of Contents, Section I., we read, "Art. 8. On Wide Daily Range of Temperature in Connection with *Vegetables* on the *Mitrial* Valves (Rheumatic Disease) and *Separation* of the Spleen." Referring to the article itself, we find "vegetations" substituted for "vegetables," and "mitral" for "mitrial," but "separation of the spleen" is still retained, with no clue whatever to the nature of this singular pathological condition. There is a grotesque completeness about this series of blunders which reminds one rather of a quack advertisement in a daily paper than of a scientific periodical. Dr. Andrews would probably find some difficulty in recognizing his own bantling thus disguised.

On page 58, we have "Art. 44. On the Bending of the Ribs in Forced *Extirpation*."

On page 111, "Art. 106. On Virgin and Humanized Lymph. By Benjamin Lee," contains the following clauses:

"5. That such virus is more likely to induce true *vaccine* in persons already vaccinated," etc., in which *vaccine* is substituted for *vaccinia*; and "6. That what is true of lymph of the first remove is also *immeasurably* true of that of subsequent removes,"—where "*immeasurably*" is substituted for *measurably*, thus completely altering, or rather destroying, the sense of the paragraph. This article, which first appeared in your own journal, is credited to the *New York Medical Journal;* but this is a mistake of the English compiler.

On page 279, in an "Abstract of Lectures on Myology, etc.," by Professor Humphry, F.R.C.S., are found "*rector spinæ*" for *erector spinæ*, in two instances "*cervices*" for *cervicis*, and "*semispinalis*" for *semispinales*.

These instances are taken at random. Similar ones probably exist which a very hasty glance has failed to discover. But alone they are quite sufficient to call for increased care in reproducing the next volume of this standard compilation.

Very respectfully yours,

BENJAMIN LEE.

1503 Spruce Street, May 9, 1873.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

SEMI-MONTHLY MEETING, April 23, 1873.

Reported by JAMES S. BAILEY, M.D.

DR. ALBERT VAN DERVEER, PRESIDENT, in the chair.

(Concluded from page 526.)

SOME LATE VIEWS CONCERNING THE MODE OF IMPREGNATION.

DR. JOSEPH H. BLATNER remarked that the investigation of the question as to how the semen of the male is brought into contact with the female ovule, or, in other words, the process of conception, involves the consideration of the motive powers which propel the spermatic fluid, as well as of the part which the cervix takes, and, in the many questions which arise, the two are so intimately connected that a separation is impossible. As to how the spermatic fluid is propelled through the cervical canal, opinions vary. The following-named forces have been given: 1st, ejaculation during coition; 2d, peristaltic action of the vaginal canal; 3d, the power of absorption by the uterus; 4th, the piston-like action of the penis; 5th, capillarity; 6th, ciliary motion of the cervical epithelium; 7th, self-movement of spermatozoa.

The peristaltic action of the vagina was observed by Kehrer in animals. This may exist, but cannot act with sufficient force to carry the fluid through the cervical canal. The absorbing power of the uterus, either by peristaltic action or by erection of the organ, has been asserted, but was not considered well proven. Ducilliez and Küss advocated this theory, holding to the view of its being effected by erection of the uterus, —erection causing the formation of a cavity and then producing a vacuum. Objections are that a mechanism of closure of the uterus, like that which is produced in the sucking mouth by means of the pharyngeal muscles, is not in accordance with our knowledge of the uterine muscles; no direct proof has been established either of erection or peristaltic motion of the uterus; no such problematic force is necessary.

The theory that the sperm is thrown directly into the uterine cavity by ejaculation was advocated by Holst, who said that there could be no other reason for the existence of the ejaculation. It is thought, however, that this force is necessary to carry the fluid through the long urinary canal and the vagina: besides, it is observed in animals that deposit it on ready-laid eggs. The meatus urethræ of the male does not coincide with the os externum, as is shown most clearly in the dog. The existence of valve-like or spiral folds in the cervical canal, seen more particularly in the sheep and sow, offers an obstacle that can hardly be overcome by an injected stream. The additional theory that the canal is open during coition, either by erection (Holst) or by reflex muscular action (Vierordt), is opposed by the fact of the close apposition of the walls and the compact structure of the organ.

To prove that the seminal fluid is forced into the uterus by the piston-like action of the penis, it is necessary to show that the vagina is inflexible, has no pocket-like vault, and that it encases the penis so closely that no fluid can escape, so as to allow it no other outlet than the cervical canal, all of which is known not to be the case.

The theory of capillary attraction was entertained by Späth and others. The relatively small cavity and thick walls of the uterus are well adapted to develop capillary force; but the cavity is already filled with a fluid of almost exactly similar consistence as the spermatic.

As to the spermatozoa being carried forward by ciliary motion, the cilia of the cervix and Fallopian tubes move in an opposite direction to that which the former pursue.

Self-movement of the spermatozoa was thought to account for their passage into the uterine cavity, other motor factors being auxiliary. The passage of the spermatic fluid *in toto* into the uterus is not proven, nor is it necessary. Experiments had been made which showed the possibility of the emigration of these cells from their fluid, of their retaining their motive power in different fluids, and that this capacity is affected by the nature of the fluid surrounding them. This migratory action has analogies in other cells.

Direct experiment by Scott on a bitch in heat demonstrated the capacity of these cells to move along the canal unaided. Examinations of animals or man shortly after ejaculation has taken place show spermatozoa only in the vagina or beginning of the cervix. The observation of Sims and others, showing their existence higher up, are not to be considered conclusive. Cases of conception without penetration of the ostium vaginæ by the penis show the possibility of spermatozoa moving from the vulva into the uterus.

That such cases have occurred cannot be doubted. The acid secretion of the vagina is not favorable to their vitality; but this is neutralized near the os by the cervical secretion. The conditions then favoring impregnation are the deposits of semen at the os externum, or, better, in the lower part of the cervical canal, which is possible by the pressure of the penis and the force of ejaculation,—indeed, according to Sims, by the pressure of the cervix against the glans by the contraction of the superior constrictor vaginæ and the dipping of the cervix into the pool of semen in the vagina. Under these circumstances it was believed the spermatozoa could most easily move to their destination.

Drs. DAVIS and DEVOL then remarked upon the subject, after which the Society adjourned.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, APRIL 10, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. S. W. MITCHELL presented a specimen of extensive *exostoses upon the internal surface of the cranium.*

Dr. S. ASHHURST exhibited a specimen of *necrosis of cranial bones in connection with disease of the mastoid cells*, a report of which was published entire in "Hospital Notes" of the *Philadelphia Medical Times* for April 26, 1873.

Dr. J. EWING MEARS presented a specimen of *myxo-sarcoma of the mamma*, removed by Dr. Washington L. Atlee from a patient æt. 55 years. The tumor made its appearance in the left mamma six years since, as a small movable mass about the size of an English walnut. When it was first observed, the patient was suffering from a tumor of the uterus, for the relief of which Dr. Atlee administered muriate of ammonia. The uterine tumor disappeared, and the swelling in the mammary gland slowly increased in size. It was the seat of intense pain at times, especially when a change of weather occurred. Declining to submit to its extirpation, she placed herself under the treatment of empirics who stated that they "could take it out by the roots without the use of the knife." Under this treatment ulceration occurred in December last, and progressed until a very large surface was exposed, which gave rise to a constant and copious serous discharge.

The appearance of the tumor was quite characteristic, —the denuded surface "inflamed and angry-looking," and the subcutaneous veins enlarged and distinctly marked. The glands of the axilla were not involved. In removing the tumor it was found that the pectoralis major muscle had been infiltrated by the disease, and was incorporated in the morbid growth.

On section the tumor showed a number of cysts containing a soft brain-like matter. Microscopical examination disclosed its texture to consist of large round cells in a network of intercellular tissue, and large quantities of small spindle cells, also compound granule cells and free oil granules.

The specimen was referred to the Committee on Morbid Growths, who reported as follows:

"Your committee, having examined the mammary tumor presented by Dr. Mears, have determined it to be a *myxo-sarcoma*. The majority of the nodules of the growth were of a firm consistence, and of a whitish color; a few of the nodules, however, were quite soft, almost gelatinous, and semi-transparent. In the latter were found true mucoid tissue, with stellate cells; whilst in the denser portions of the growth the connective-tissue elements predominated, composed of two varieties of cells, one small and spindle-shaped, the other round and nucleated. The intercellular substance is of hyaline, structureless appearance."

Dr. DE FORREST WILLARD presented a pair of *large smooth white kidneys*. The patient, a man 26 years of age, had never been in robust health, but had been able to continue at his work until four months previous to death. He did not come under observation until mental hebetude was so marked that no satisfactory history could be obtained. Two months before his death, he had convulsions for several weeks. There was troublesome cough for the last month of life; no hæmoptysis. The urine contained a very large amount of albumen,—nearly three-quarters. Death occurred from exhaustion, without convulsions.

Autopsy.—Kidneys both greatly enlarged,—7 inches in length, 4 inches in breadth, and 2½ inches in thickness. Cortical substance thickened, and exceedingly fatty, its color being almost white, and presenting a marked contrast to the dark congested pyramids. The pelvis and ureters were normal. There was a large cavity in the apex of the left lung, and several smaller ones in the upper lobe; the entire remainder of the upper lobe, and a portion of the lower, were studded with tubercles. The right lung was nearly in the same condition, the cavity at apex, however, being smaller.

The other organs presented no marked pathological changes.

Dr. JAMES TYSON presented a case of *cystic kidney with impacted calculi*, which is reported by G. Wilds Linn, M.D., in another column of the *Medical Times*.

GLEANINGS FROM OUR EXCHANGES.

RESINA COPAIBÆ AS A DIURETIC (*Lancet*, March 22, 1873).—Dr. Wilks speaks with the greatest confidence of the value of the resin of copaiba as a diuretic. The ordinary copaiba has long been known for its action on the kidney, and is occasionally used in dropsy, but the nauseous taste of the oleo-resin has almost forbidden its employment. The oil separated from the resin is officinal, and is often prescribed in gonorrhœa instead of the compound substance. It is thought that the oil acts more especially on the mucous membranes, and is therefore useful in affections of the bronchial, vesical, and urethral surfaces. If this be so, it is equally certain that the diuretic properties reside in the resin. Dr. Wilks has found it very difficult for patients to take the ordinary pharmacopœial drug, and almost impossible to get general practitioners to sanction its administration in private practice: he therefore has substituted for it the simple resin, and finds it equally or more efficacious. He gives fifteen or twenty grains in mucilage and flavored water three or four times a day, and has had numerous cases showing its marked diuretic properties. There was in Guy's Hospital a man who came in with ascites, and who, after taking numerous other remedies, was ordered the resin. The amount of urine was at once doubled in quantity, and after a few days the fluid almost entirely disappeared. Dr. Wilks states he has lately had as a private patient a "drunkard builder," for whom he likewise prescribed the resin; a diuretic action was at once effected, and the dropsy quickly disappeared. In heart-cases also he has given it with great success. Lately there was in the hospital a girl with mitral disease and considerable dropsy, who took the usual medicines without effect, and was then ordered the copaiba. It at once produced the desired effect, and the fluid was dispersed. Dr. Wilks says he has often given the remedy and failed; but, on the other hand, when it has succeeded, the result has been more striking than with any other diuretic he has seen. He would desire to see it introduced into the Pharmacopœia, as it is not kept by chemists, although he is informed it is used largely by perfumers, and the resin thrown away in large quantities as a waste material.

TREATMENT OF CEREBRAL EXHAUSTION (*British Medical Journal*, April 11, 1873).—In his Croonian Lectures, lately delivered, Dr. Radcliffe, after describing the principal symptoms of cerebral exhaustion as failure of memory, depression of spirits, increased or diminished sleepiness, unusual irritability, a continued craving for food or for stimulating drinks, lessened locomotive power, lessened control over the bladder, diminished sexual activity, inequalities of circulation, an aged aspect, disposition to tears, yawning, occasional faintness, epileptiform symptoms, or transitory hemiplegia or coma, proceeds to consider its prevention and treatment. In diet, he

thinks that the present system of urging persons at all weakly, especially children, to eat as much as they can, may have not a little to do in causing the development of many nervous diseases. He is equally opposed to persistence in "training diet" and to Bantingism, believing that the nerve-tissues as well as others may be effectually starved by excluding the hydro-carbons from the food. He further thinks that too much stress is ordinarily laid upon the importance of walking exercise; much walking, in fact, seeming to be no insignificant cause of the break-down in the patient's health, and little or no progress is made until he begins to economize his strength in this direction. He is also disposed to maintain that rest from head-work may be too much insisted upon in cerebral exhaustion. He is satisfied he has often met with patients with jaded brains who have certainly let their minds lie fallow too long. Mere distraction is not enough. What is wanted generally, even at the beginning, is not that work should be given up altogether even for a short time, but that it should be moderated in amount, or changed. He is of opinion that the wakefulness may be much better combated by attention to the position of the head in sleep than by narcotics. Sleep in bed is, as a rule, sounder with a low pillow than with a high one. On the contrary, if there be undue sleepiness the head should be kept high.

Perforating Idiopathic Ulcer of the Œsophagus (*Irish Hospital Gazette*, February 15, 1873).—Dr. J. Hawtrey Benson exhibited to the Pathological Society of Dublin, February 1, a morbid specimen and illustrative colored drawing of the above rare affection. The case was that of a woman, aged 50, but with the appearance of a person of 75 or 80, who looked as if she was a sufferer from cancer, especially as the glands in the groin, neck, axillæ, and mesentery were enlarged. She complained of soreness, referred to the centre of the sternum, and of extreme dysphagia. From these circumstances, cancer of the œsophagus was diagnosed, and she was nourished by the rectum for three weeks, when, one morning, she said she could swallow with perfect ease. A diagnosis of a tumor pressing on the œsophagus, which, from some unknown cause, had shifted its position, was now made. After the favorable change in the symptoms had continued for ten days, uncontrollable diarrhœa set in, from which she died. At the post-mortem examination, an oval-shaped ulcer, about the size of a shilling, was found to have perforated the œsophagus about five inches above its cardiac extremity; the pleura adjacent to the ulcer had been attacked, as shown by a patch of vascularity, but there was no extravasation of food during life. There was a ragged ulceration in the œsophagus surrounding the perforation; and in connection with this portion of the tube was a tumor, about the size of a hen's egg, which, however, was not of a cancerous nature, but mainly composed of gland-tissue. Dr. Benson, in explanation of the symptoms, thought that the dysphagia depended on spasm from the passage of food, which ceased to occur when the disease extended more deeply into the tissues. The specimen was a very rare one. The writings of Hamburger and Oppolzer had thrown some light on the obscure nature of the diseases of the œsophagus, about which previously but little was known.

Acute Purpura in a Child Two Days Old.—Dr. F. W. Campbell, in the Canada *Medical Record*, March, 1873, reports a well-marked case of purpura in an infant two days old. There was nothing abnormal noticed about either mother or child at the time of birth. For two days the child was active, and apparently well. Then it began to bleed from the nose, gums, ears, and bowels. The skin was of a dusky hue, and covered with small petechial spots. In spite of all treatment, the child sank, and died in twenty-four hours, evidently from exhaustion.

MISCELLANY.

A Vienna "Rigorosum."—Dr. D. Inglis, writing from Vienna to *The Detroit Review of Medicine and Pharmacy*, thus describes a scene at a *rigorosum*, or examination:

"At last, a woman was brought in from the adjoining lying-in room, who had been in labor forty-three hours, membranes ruptured thirty-three hours previously, uterine contractions almost continual, and everything indicating the use of the forceps, head high in the pelvis, occiput towards the left. One of the students having made this diagnosis, the forceps were called for, the next student in order applied one blade, the next the second, the third locked them, and the next three took turns in making traction, but, being unable to accomplish any advance of the head, the professor himself took the forceps, and was likewise unsuccessful.

"He then asked what was to be done next, and, on being answered, 'craniotomy,' the curved trephine and Braun's cranioclast were brought out, and, much to our astonishment, one of the students was requested to apply the trephine, while a second assisted.

"The head being successfully perforated, a couple more students, after some devastation among the assistants' shirt-bosoms, caused by an excited and inaccurate use of the syringe, succeeded in washing out the brain-substance.

"It being now well past supper-time, we adjourned for an hour, to allow the uterus, if possible, to finish the labor without further instrumental assistance; when, no uterine contractions having taken place during the interval, the cranioclast was produced. The gentlemen under examination now alternated in applying this instrument and forcibly tearing out small portions of the child's skull, until at length Prof. B. concluded that the *examination* had proceeded far enough, and attempted to extract with the cranioclast; but, the parts being by this time so much lacerated, he was unable to do so, and only by using a cephalotribe was he at last enabled to end the scene. Such was the first obstetrical rigorosum of the term; and it well deserved the name."

Stevens Triennial Prize.—The Stevens Triennial Prize for 1873 has been awarded to an Essay on "The Sphygmograph: its Physiological and Pathological Indications," by Edgar Holden, M.D., of Newark, New Jersey.

The questions proposed for the next prize (1876) are as follows:

I. "The History of Epidemic Diseases in the United States, from 1860 to 1870;" statements as to localities, dates, extent of prevalence, and mortality, to be au-

thenticated by appropriate references. The question of *treatment* is not to form a part of the above subject.

II. "The Use of the Spectroscope, in its Application to Scientific and Practical Medicine."

The competing essays on either of the above subjects must be sent in to the President of the College of Physicians and Surgeons, New York, on or before the first day of January, 1876. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name and address of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced, at the Annual Commencement of the College, in March, 1876.

This prize, which will amount to two hundred dollars, is open for universal competition.

By order of the Prize Committee,

J. C. DALTON, M.D.

DIFFERENCE OF LONGITUDE.—"We are sorry," says the London *Medical Times and Gazette*, "to observe that the medical officer of St. George's-in-the-East Workhouse, against the unanimous wish of the Guardians, is strenuously opposing what is in most workhouses a customary allowance of beer for paupers who work as tailors, shoemakers, etc., thus partially recouping the parish for their keep. It is difficult to conceive what valid objection the doctor can have against the very moderate allowance of beer customary in such cases. However, as the Poor-Law Orders require the sanction of the medical officer to the bestowal of malt liquors, we suppose the working inmates will be deprived of their harmless luxury."

Paupers in this country are not accustomed, except by special orders of the physician, to such "harmless luxuries."

SUIT FOR MALPRACTICE.—We see it stated in the daily papers that a suit for $10,000 damages has been brought against Dr. J. D. Schooley, of Braddock borough, Alleghany County, Pa., for malpractice in the case of a man named Hodder, by bandaging an injured limb so tightly as to cause mortification and death. The plaintiffs are the widow and her four children.

THE *Obstetrical Journal of Great Britain and Ireland* is to be republished in this country by Mr. H. C. Lea, with a supplement of sixteen pages, edited by Dr. William F. Jenks, of this city. The first number has appeared, and is in every way creditable.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM MAY 13, 1873, TO MAY 19, 1873, INCLUSIVE.

IRWIN, B. J. D., SURGEON.—Granted leave of absence for twenty days. S. O. 72, Department of the Missouri, May 14, 1873.

PHILLIPS, H. J., ASSISTANT-SURGEON.—To report in person for duty to the commanding officer of the Modoc Expedition. S. O. 51, Department of the Columbia, May 2, 1873.

HEIZMANN, C. L., ASSISTANT-SURGEON.—Assigned to duty with the expedition for the reconnoissance of Northwestern Wyoming. S. O. 80, Department of the Platte, May 15, 1873.

EWEN, C., ASSISTANT-SURGEON.—Granted leave of absence for thirty days. S. O. 78, Department of the Platte, May 12, 1873.

WEEKLY RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FOR THE WEEK ENDING SATURDAY, MAY 17, 1873.

DISEASES.	Adults.	Minors.	DISEASES.	Adults.	Minors.
Anæmia	...	1	Fever, Intermittent	...	1
Apoplexy	10	...	" Rheumatic	1	...
Burns and Scalds	1	...	" Scarlet	...	14
Cancer	3	...	" Typhoid	7	2
" of Stomach	1	...	Fracture of the Leg	1	...
Casualties	9	1	Gangrene	1	...
Cerebro-Spinal Meningitis	2	10	Hemorrhage from Bowels	1	...
Compression of the Brain	2	...	Hooping-Cough	...	2
Congestion of Brain	6	6	Inanition	...	4
" Liver	1	...	Inflammation of Brain	3	6
" Lungs	2	1	" Bronchi	3	...
Consumption of Bowels	1	...	" Heart	1	...
" Lungs	52	8	" Lungs	6	6
Convulsions	1	3	" Peritoneum	6	3
" Puerperal	1	...	" Pleura	...	1
Croup	...	5	" Stomach & Bowels	2	4
Cyanosis	...	1	Jaundice	1	1
Debility	4	6	Marasmus	1	10
Diabetes	1	...	Measles	...	1
Diarrhœa	1	2	Murder	...	1
Diphtheria	...	2	Neuralgia of the Heart	1	...
Disease of Bowels	...	1	Old Age	8	...
" Brain	1	1	Paralysis	8	...
" Heart	12	...	Poisoning	1	...
" Hip	...	1	Scrofula	...	1
" Kidneys	4	...	Smallpox	2	...
" Spine	1	...	Softening of Brain	1	...
Dropsy	2	...	Still-Born	...	23
" of Brain	...	1	Stricture of Œsophagus	1	...
" Chest	1	...	" Urethra	1	...
" Lungs	1	...	Suicide	1	...
Drowned	1	...	Tetanus	...	2
Effusion on Lungs	...	1	Ulceration of Stomach	...	1
Enlargement of the Heart	1	...	Unknown	1	...
Epilepsy	1	...	Uræmia	1	1
Erysipelas	1	...			
Fever, Bilious	1	1			
" Catarrhal	...	1			
			TOTALS	193	137

METEOROLOGICAL OBSERVATIONS TAKEN AT THE SIGNAL OFFICE, PHILADELPHIA, DURING THE WEEK ENDING SATURDAY, MAY 17, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain. In.
MAY.				
Sunday 11th	29.66	55	Foggy, Clearing.	.96
Monday 12th	29.84	59	Fair, Clear.	.....
Tuesday 13th	29.69	61	Fair, Clear.	.14
Wednesday 14th	29.83	53	Fair, Clear.	.....
Thursday 15th	29.82	58	Clear.	.....
Friday 16th	29 88	60	Cloudy, Fair.	.....
Saturday 17th	29.99	57	Fair, Clear.	.....
Means	29.81	57		1.10

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

BOOKS AND PAMPHLETS RECEIVED.

Fourth Annual Report of the Philadelphia Eye and Ear Infirmary. 1873.

First Annual Report of the Dispensary for Skin Diseases, Boston. 1873.

Consumption and its Treatment in all its Forms. By Dr. Carl Both. 8vo, pp. 157. Boston, Alexander Moore, 1873.

The Functioh of the Eustachian Tube, in its Relation to the Renewal and Density of the Air in the Tympanic Cavity, and to the Concavity of the Membrana Tympani. By Thomas F. Rumbold, M.D., St. Louis. 8vo, pp. 40. St. Louis, Southwestern Book and Publishing Company, 1873.

The Treatment of Whooping-Cough with Quinine. By B. F. Dawson, M.D., etc. (Reprinted from the *American Journal of Obstetrics and Diseases of Women and Children*, Feb. 1873.) 8vo, pp. 14. New York, William Wood & Co., 1873.

SATURDAY, MAY 31, 1873.

ORIGINAL COMMUNICATIONS.

TWO CASES OF PURPURA RHEUMATICA.

BY LOUIS A. DUHRING, M.D.,

Clinical Lecturer upon Diseases of the Skin in the University of Pennsylvania, and Physician to the Dispensary for Skin Diseases, Philadelphia.

INASMUCH as the following cases are interesting examples of the process or disease known as purpura rheumatica, and at the same time offer certain peculiarities which are of value in a diagnostic point of view, I take the opportunity of presenting them. The cases are quite similar, and, as so often happens with rare or odd forms of disease, they both came under my notice at the same time, about six months ago. Purpura rheumatica, or peliosis rheumatica, as it was originally called, one of the three varieties of purpura, is a disease of uncommon occurrence, and possesses a curious array of symptoms, all of which are usually found accompanying the disorder. At times, however, it happens that some of these signs are but imperfectly exhibited, and that the cutaneous manifestation of the disease offers odd and varied appearances. Moreover, the diagnosis of the affection, though sufficiently easy when the case is typical, may at times be difficult; especially so when the eruption is only partially developed and the true nature of the anatomical lesion almost imperceptible. Such was the condition in both of the instances about to be detailed at the time when I first saw them.

The first case is that of Anna K., a young American girl, single, twenty-two years of age, and a domestic by occupation. She came under my notice in September, 1872. Her health had been excellent until three months previous, when she began to get thin and pale, frequently complaining of weariness on slight exertion, with pain in the back, constipation, and loss of appetite. These symptoms continued to about the same extent for two months, when they suddenly became aggravated. Headache, together with a sense of unusual heaviness of the head, was now almost constant. For a week preceding the eruption she experienced severe pains in the arms, extending from the elbows to the finger-ends. The legs as far down as the ankles were also affected in the same manner, but the body was not involved. The pain was of a dull, aching character, which came upon her at dark and continued through the night. The fingers now became swollen, stiff, and painful, while the general symptoms of distress were very great. At about this time the eruption made its appearance suddenly, while she was attempting some manual labor. It first showed itself over the arms and backs of the hands, in the form of small, reddish spots, many of which were raised above the level of the skin. The elevation referred to lasted through the day, but by the next morning had greatly subsided. Two days after this the eruption appeared upon the legs and backs of the feet, and a few days later upon the trunk. With the first sign of the breaking out the pains, which had been so severe, left her almost entirely. On September 17, the occasion of my first visit to the patient, I found her very pale in color, without appetite, bowels very much constipated, flatulent, weak, very low-spirited and despondent. She had a constant craving for long-continued sleep, and could scarcely resist the temptation of sleeping through the entire day. After the appearance of the eruption the skin of the arms and legs became very sensitive, the slightest knock or bruise causing great pain. With the outbreak of the skin manifestation her catamenia came upon her, out of regular time, and flowed almost uninterruptedly, with great loss of blood, for two weeks. Upon examining the skin I found numerous faint, reddish spots well scattered over the arms, legs, thighs, and abdomen. I make use of the indefinite word spot because at first sight it was difficult to determine what the elementary lesion actually was. Some were slightly raised in the form of papules, but the greater number were upon a level with or beneath the surrounding skin. They were roundish or irregular in outline, and varied in size from a pin's head to a pea. Many of them possessed no marked line of contour, but appeared to fade away imperceptibly into the healthy skin. Again, in other places the eruption seemed to be strictly macular, with no visible sign of hemorrhage into the tissue. In general appearance it bore a great resemblance to a fading syphilitic erythema. Close inspection, however, revealed the anatomical lesion to be a cutaneous hemorrhage, though very slight and superficial in character. It must not be forgotten in considering these unusual signs of purpura that the eruption was not in its first stage, but had existed some ten days. Rest, good food, and a preparation of iron and cinchona were directed for the patient. A week later found her condition decidedly better; the catamenia had ceased, the skin was no longer sensitive, the pains had disappeared, and there was no appearance of new hemorrhage visible. This improvement continued for a month, when one day, after the violent exercise of washing clothes, an eruption of small, red, elevated spots appeared over the arms, attended with marked swelling, heat, and itching. This remained visible for a day or two only, and disappeared without trace. The following week, while washing, this same trouble again manifested itself. She at once visited me, for the purpose of allowing me to see the eruption in its acute stage. It proved to be a well-marked multiform congestive erythema, which lasted but a day or two. There was no hemorrhage. After this the patient had no further trouble, but continued to improve rapidly. I may mention that I have quite recently seen her, and that she considers herself as entirely recovered. A mottled staining of the skin is still visible about the limbs, the only trace of the former affection.

During the latter part of last summer I was requested to see Mrs. A., a married lady, about thirty-five years of age. She was the mother of four children, the youngest of which, twenty months old, she was still nursing. She informed me that

she had been in poor health for some months, but that within the last few weeks she had been without appetite, and that her strength had failed her. She said that she had also experienced dragging pains throughout her body and limbs, and that an extensive eruption had made its appearance over her body. This eruption had come out very rapidly, and had occupied the entire body in the course of two or three days. It first made its appearance in the form of small, round elevations, which had a resemblance to nettle-rash. Since the breaking out the whole skin had been very sensitive and sore, the slightest knock giving great pain.

Upon examining the lady, I found her exceedingly prostrated, scarcely able to walk about the room. She was very low-spirited, nervous, and singularly despondent, making the assertion to me that she knew she would never recover. Her complexion was pale, and the skin generally was loose and flabby, and very painful if touched or handled. A copious eruption existed over the limbs and body, which consisted of small, pin-head to pea-sized, roundish spots, situated apparently in the corium. Most of them were ill defined, with little or no line of demarcation about them. Some were raised in the form of papules, while others less distinct were beneath the level of the skin. Some of them were also macular, and appeared quite superficial. The color varied very greatly, according to the locality and the duration of existence. Some were pinkish, while others had a faint, dirty-reddish hue. The eruption existed generally over the whole skin, though it was more pronounced about the back and abdomen. There was no tendency to grouping, nor was there any itching present. Careful examination determined the eruption to be due to minute hemorrhages into the skin. But this diagnosis was by no means easily arrived at, for the lesion bore a close resemblance to the skin manifestation of early syphilis. It looked exceedingly like the stage of dermato-syphilis which is so commonly seen, where the macular and papular forms seem to join each other imperceptibly. The hemorrhagic nature of the disease was only recognizable after the closest scrutiny. The eruption resembled syphilis much more than it did purpura as we usually see it; and it is this similarity to the former trouble which makes the present case so interesting in a diagnostic point of view. The history in most cases of purpura rheumatica, together with the usually marked hemorrhage into the skin, leaves no room for doubt as to diagnosis; yet, when no authentic history can be obtained, or where we rely upon the objective symptoms for diagnosis, an irregular form of eruption such as occurred in the present case may readily lead one astray.

With reference to the treatment of the patient, I would say that the child which she was nursing was directed to be weaned at once. Good diet, beef-soup, ale, and a preparation of iron and phosphoric acid with bark were ordered, and the assurance given to the patient that she would undoubtedly recover her former good health. Unfortunately, I was not able to see this case again, nor could I obtain exact notes of the subsequent changes in her condition; but I have recently heard that the skin-trouble left very slowly, and that improvement in her general health progressed likewise at a tedious pace. However, to what extent my directions were followed, or whether they were instituted at all, I am unable to state, my impression being that no regular course of treatment was insisted upon either at that time or since.

NOTES OF HOSPITAL PRACTICE.

WILLS OPHTHALMIC HOSPITAL.

SERVICE OF GEORGE C. HARLAN, M.D.

Reported by W. H. Winslow, M.D.

TRAUMATIC OPHTHALMIA.

J. P., a farm-hand, æt. 28 years, was picking frozen earth, when a piece struck him in the left eye and produced contusions, resulting in a sloughing ulcer. He presented himself for treatment one week after the occurrence of the injury. There was much pain, the conjunctival and deeper vessels were injected, and an onyx formed at the lower margin of the cornea. He was admitted to the hospital, blood taken from the temple by the artificial leech, a solution of sulphate of atropia instilled often, and a borax and camphor wash applied several times during the day. In a week the ulcer had nearly filled up, and the general symptoms were much improved, though some conjunctival redness remained. The treatment was continued, with the addition of a gr. iv solution of nitrate of silver applied to the inner surface of the lids twice daily. The patient went rapidly on to recovery, and was discharged cured on the twentieth day.

CORNEO-SCLEROTIC TUMOR.

C. H., a man æt. 60 years, was at the hospital one year ago with a white warty growth upon the conjunctiva, overlying the corneo-sclerotic border of the left eye; it was removed by scissors and caustic. He returned with a recurrence of a similar irregular, yellowish-white structure, resembling myxoma, in the same situation as before; extending along the corneal rim upon the outer side about three-eighths of an inch downwards, two lines in width, and raised above the surface of the conjunctiva about a line.

It was thoroughly removed with scissors, the edges and surface touched with a point of nitrate of silver, which was neutralized by a solution of common salt before the lids were allowed to close, and a borax and camphor wash ordered to be applied frequently.

The caustic was applied twice subsequently, and the patient was well at the end of one week, and discharged.

IRITIS.

F. M., a man æt. 29 years, a conductor by occupation, confessed to having had chancre last January, followed by specific eruption and sore throat, from which he recovered under regular treatment.

Three weeks before his appearance at the clinic, he suffered from congestion and pain in the right eye, which remitted somewhat after a few days, without treatment. He complained of tinnitus aurium, and had pharyngeal catarrh with granular condition of the mucous membrane. There was tenderness along the tibial spines, and pain with nocturnal exacerbations. Both eyes were found injected, with episcleral zones well marked, and in the right much photophobia and orbital pain. Vision in the left was normal, but in the

right it was only $\frac{20}{\overline{LX}}$ of Snellen. The pupils were sluggish, and instillation of atropia showed an annular synechia, unyielding in the right, but the left gradually and irregularly dilated, there being only a few points of attachment.

He was ordered pot. iod., gr. x, three times a day, mercurial inunction at night, and atropia wash. The iritic attachments yielded rapidly in the left eye, but the annular synechia remained in the right until the system came well under the mercurial influence, when the repeated instillation of atropia, gr. viii to ℥j of water, in two hours tore away the attachments, leaving small particles of uvea upon the anterior capsule, and the pupil widely dilated.

The mercury was suspended, and the iodide continued with the atropia wash; he made a rapid recovery, and was discharged the twenty-first day, with vision normal and eyes perfect.

T. P. F., a healthy-looking man, æt. 28 years, a laborer in a foundry; complained of pain and a watery condition of the right eye.

He said he had never had syphilis or rheumatism, but had had gonorrhœa several months previously to his appearance for treatment. The left eye was normal; the right was injected and irritable, with much orbital pain, and he had slight constitutional fever. The pupil was sluggish, and there were several attachments to the anterior capsule. Vision equalled $\frac{20}{\overline{LXXX}}$ Snellen. A solution of atropia, gr. iv to f℥j of water, was ordered to be instilled three times a day, the eye to be bathed frequently with a borax and camphor wash; f℥jss of blood to be taken from the temple immediately by leeches, and pot. iod., gr. x, with hydrarg. corros. chl., gr. $\frac{1}{12}$, to be taken three times a day.

He was somewhat better the third day, and the pupil was well dilated; but leeching was ordered again, and the atropia and alterative treatment continued.

He improved rapidly until the seventeenth day, when, after exposure to wind and cold, he returned with renewed pain, increased episcleral zone, cloudiness of the aqueous humor, and dulness of the cornea.

He was given gr. ⅛ morph. sulph., and f℥ss ol. terebinth., three times daily, and the alteratives were discontinued. As this produced strangury, the morphia was omitted, and gtt. x tr. opii were taken with each dose. Four days after this his eye had much improved, vision had risen to $\frac{20}{\overline{XL}}$ Snellen, and he seemed to be getting along finely. The turpentine and laudanum were discontinued, and alterative treatment again directed. One week afterwards there were few symptoms of importance remaining; but upon testing his vision it was found only $\frac{20}{\overline{LX}}$ Snellen. Ophthalmoscopic examination revealed a cloudiness of the vitreous with movable shreds of lymph, and the deeper structures could not be well discerned.

J. S., an intemperate man, æt. 45 years, a tavern-keeper, had syphilis fourteen years ago, but he denied having had any appearance of it since. His wife and children enjoyed good health.

Upon examination, superficial keratitis was found in the right eye, with iritis and an annular synechia. Vision in the left eye was normal, but in the right was only $\frac{2}{C}$ Snellen. He was ordered gr. iv pil. hydrarg. twice a day, a wash of gr. ii atrop. sulph. to ℥j aquæ destil., and ℥j of blood to be taken from the right temple by leeches. In two days the iritic adhesions had all yielded, except one at the lower and inner side, the remainder of the pupil being widely dilated.

The fourth day he was well under the mercurial influence, the pupil was regularly dilated, and the inflammation and pain were much diminished. The blue pill was now stopped, and pot. iod., gr. v, with hydrarg. chlor. corr., gr. $\frac{1}{16}$, ordered to be taken three times daily, and the atropia wash continued.

In two weeks vision was normal, and he had entirely recovered.

RETINITIS.

T. N., æt. 51 years, a machinist by occupation, but formerly a soldier of the French army in a detachment stationed at Algiers. First wore glasses at the age of twenty-seven years. His health was and had generally been good, and he denied positively having ever had venereal disease, but occasionally suffered from slight rheumatic pains. He applied for relief on account of a dimness of sight, which he noticed first about four months previously, and which had increased steadily. The eyes externally appeared healthy. Vision in each eye was $\frac{14}{C}$ Snellen; Hypermetropia = $\frac{1}{7}$.

Ophthalmoscopic examination of the right eye showed media clear, and little grayish spots, the size of a millet-seed, scattered in the fundus at the outer side of the disk and around the macula; there were white streaks along some of the larger vessels, the retinal circulation was excessive, and the disk doubtful. In the left pretty much the same condition prevailed, but the spots were rather more abundant, and there was a slight bluish haze about the edge of the papilla. These spots were irregular in shape, like little pearly grains in the retina, somewhat resembling those found in Bright's disease; but repeated examinations failed to detect any albumen in the urine.

He was ordered gr. $\frac{1}{24}$ hydrarg. chlor. corr., and gr. v iodide of potassium, three times daily, and kept under observation. The chloride was discontinued after a few weeks, and the iodide given alone. In three months vision had risen to $\frac{20}{\overline{XL}}$ Snellen in the right eye, and to $\frac{20}{4}$ in the left. As he suffered from constipation, he was ordered a pill of aloes, colocynth, and belladonna, to be taken every night. At the end of the fourth month most of the spots in the fundi had disappeared, vision had risen to $\frac{20}{\overline{XXX}}$, and, as improvement seemed to have stopped, he was ordered spectacles of $+\frac{1}{7}$ to neutralize his hypermetropia, and dismissed with instruction to return occasionally for examination.

E. R. T., a woman in robust health, æt. 19 years, came to the clinic February 1, complaining of a dimness of sight, which had come on suddenly one evening, and the next day she had found herself unable to read ordinary print. She had an offensive nasal catarrh, and her hair had fallen out slightly some months before; but no other symptom of a syphilitic taint could be discovered.

She stated that she had pursued her occupation of machine-sewing, without serious difficulty, until a few days before the sudden failure of vision. Externally the eyes were healthy. Ophthalmoscopic examination of the left eye showed a high degree of myopic astigmatism, and an extensive staphyloma posticum, but a fundus otherwise normal. A $-\frac{1}{5}$ spherical combined with a $-\frac{1}{12}$ cylindrical at 30° gave a vision of $\frac{20}{\overline{XL}}$ Snellen in this eye; but without the glass there was no useful vision, and she had evidently depended entirely upon the other eye.

In the right eye there was a peculiar irregular grayish-white cloud-like patch, extending downwards and outwards from the disk, about three disk-diameters in width and six in length; several interrupted retinal vessels passed over it, and there were numerous hemorrhagic extravasations upon its surface. Vision in this eye was $\frac{20}{\overline{LXXX}}$ Snellen with a $-\frac{1}{10}$ glass. The bowels were constipated, and she was ordered a purgative, sent to bed, blood taken from the temple by the arti-

ficial leech, and hydr. chlor. corr. and iodide of potassium given in alterative doses.

February 3.—A slight decrease of the patch was noticed at its lower edge, which had become ill defined, the healthy fundus, as it were, encroaching upon it. The leeching was repeated and alteratives continued.

February 5.—The fundus was rapidly assuming its normal characteristics at the lower part of the patch, giving the upper edge, by contrast, the appearance of a silvered cloud. Leeching was repeated, and other treatment continued, with the addition of a Seidlitz powder every morning to relieve constipation.

February 24.—There was nothing left of the exudation except a narrow cloudy streak, corresponding to what had been its upper margin, extending outwards and downwards from the disk, which might almost have escaped notice if its locality had not been previously determined. She stated that "her sight was as good as it ever had been," and it was found that she could read $\frac{20}{XXX}$ Snellen with some difficulty.

March 14.—Very little change had occurred, either in ophthalmoscopic appearances or vision. She was directed to take iodide of potassium, gr. x, three times daily, and discharged at her own request.

The Progress of Syphilis during Pregnancy (by Prof. Sigismund, of Vienna: *Le Mouvement Médical*, April 26, 1873; from *Wiener Mediz. Presse*, 1873).—In this clinical lecture the author confines his remarks to syphilis contracted by the genital parts either during or just before pregnancy.

The liability to contract syphilis is greater among women who are pregnant than among those who are not, and for the following reason: The inoculation of the virus is singularly favored by a kind of catarrhal condition of the mucous membrane lining the genital parts, by the presence of a blennorrhea, and by the presence of erosions of the labia and of the vaginal portion of the cervix. These erosions of the neck are due to a true maceration in the alkaline cervical mucus. The duration of the period of incubation of syphilis is the same during pregnancy as in the normal condition. The onset of syphilis is not often recognized by pregnant women, the primary manifestations being ascribed by them to the pregnancy itself; midwives frequently make the same mistake.

The primary manifestations of syphilis always develop in the same locality whether the woman is pregnant or not, but they are in the former case more obstinate, more rapid in their progress, and have a greater tendency to spread.

Relapses occur frequently. Diffuse redness of the skin, superficial excoriations, disseminated or agglomerated follicular abscesses, herpes, eczema, œdema of the genital parts or of the anal region, are of frequent occurrence during pregnancy. To these different lesions must be attributed not only the easy inoculation of the syphilitic virus, but also its markedly rapid extension in pregnant women. In addition to the preceding causes, the maceration of the skin by the contact of various irritating fluids—perspiration, sebaceous matter, urine, mucus, and muco-pus—explains how the neighboring lymphatic ganglia may become rapidly infected. Syphilitic indurations or papules involving either the vaginal portion of the cervix or the fourchette may prove very dangerous at the time of the labor. In fact, the tissues swollen or infiltrated by syphilitic exudations lose their elasticity, become inextensible, and tear easily during the passage of the fœtus. The resulting wounds have a tendency to slough, and may bring about an inflammation of the neighboring chain of lymphatics, or may even give rise to pyæmia. This is especially true of wounds of the vaginal portion of the cervix uteri.

The secondary syphilitic manifestations are, on the contrary, of a relatively benign nature. They are feebly pronounced on the skin and mucous membranes; falling of the hair, visceral affections, and "syphilitic fever" are seldom observed during pregnancy. The same is true of disease of the nervous system (syphilitic pains, convulsions, etc.), and, in general, of all the grave forms of secondary syphilis. The author explains this fact by the changes going on in the economy of the pregnant woman; the blood becomes less rich, the activity of the different functions becomes greater; the secretions, and especially that of the mammary glands, are increased. If this last explanation be accepted, it is important in the treatment of syphilitic patients that the specific remedies should be given with powerful tonics, and that great care should be bestowed upon the diet.

Disease of the Subcutaneous Mucous Sacs in Children (Albert: quoted from *Journal für Kinderkrankheiten*, 1872, Hefte i.–ii.)—Disease of the subcutaneous mucous sacs is of rare occurrence in children. The author saw two cases in one year, closely resembling each other, both in girls from five to seven years old. Both of the children possessed that peculiar flaccidity in the joint of the ankle which permits abnormal dorsal flexion and pronation, and which may develop into pes valgus.

Although the inner edge of the foot was curved, and the back of it well shaped, yet both children walked with marked tendency to pronation. In each there was a perfect, round, well-distended sac extending from the os naviculare to the inner condyle. The treatment in one case consisted in the application of a plaster-of-Paris bandage, in the position of supination, with a fenestra which permitted the application of topical dressings and pressure. In a few weeks the fluid was absorbed, and a shoe constructed for a case of pes valgus was put on. The same shoe was placed on the other child, but, as it was delicate and scrofulous, the shoe could not be endured, and inflammation of the hygromatous sac set in. Rest in bed, cold applications, and pressure composed the treatment. Suppuration occurred, and an incision was necessary. A flocculent, sero-purulent discharge took place. The case did not show symptoms of rapid improvement.

Subjective Impressions of Color produced by Objective Impressions of Sound (*Wiener Med. Wochenschr.*, 1873, Nos. 1, 2, 3; quoted from *Monatsschr. für Ohrenheilkunde*, March, 1873).—This is an article by J. A. Nussbaumer, which sets forth a peculiarity which he possesses in common with his brother, of perceiving colors subjectively by listening to certain sounds, mostly on the piano. These two gentlemen have been examined by Professor Brühl, of Vienna, who is convinced of the truth of their statements, and, after a careful analysis of the cases, has found that the same sound always produces the same subjective color in the same person, but these colors are not the same in each of the brothers, although the test-sounds are invariable. Thus, the note "small a" on the piano produces in one the subjective impression of dark Prussian blue, in the other dark yellow. There are also colors which are never produced by any sound. Blue and yellow, brown and violet, occur most frequently in one, while blue, yellow, and brown occur most frequently in the other; violet the least frequently.

One of the brothers never perceives red, green, black, nor white, in any musical notes. The author perceived on one occasion green by suddenly hearing a noise from the sharpening of a saw.

PHILADELPHIA
MEDICAL TIMES.
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MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

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SATURDAY, MAY 31, 1873.

EDITORIAL.

WHAT HAS BEEN ACCOMPLISHED?

THE annual meeting of the American Medical Association being over, and the report of its proceedings made public, the question may be pertinently asked, What did it accomplish? Our conviction is that upon a comparison of the expenditure and the result, the latter must be admitted to be lamentably small.

We may assume that there was an attendance equivalent to that of four hundred physicians for three days; which would be twelve hundred professional days devoted to the meeting, not counting the time spent by many of the delegates in travelling from their homes to St. Louis and back again. Let us now see whether any object or objects were attained, to the accomplishment of which any one physician would be willing to give up three and one-third years of his time. It seems to us that this is a fair way to put the case.

Of business relating to the affairs of the Association itself, the main item was the establishment of the Judicial Council. That this is a step in advance, will probably be conceded by every one; but we submit that it is but a very short step, since it only provides for the entertainment of ethical and judicial questions, and does not touch the great difficulty, —the non-representative character of the membership of the Association. Of some other matters —the reports of the Committee on Ethics, the report on American medical literature, and that on medical education—we have as yet only meagre accounts, but those contain no salient points offering evidence of interesting material in them.

The Army Medical Corps made an appeal for the memorialization of Congress in their behalf, which seems to have been favorably received, but no action is recorded beyond placing the matter in the hands of a committee.

In regard to the nomenclature of diseases, a subject of great importance to the profession at large, no advance seems to have been made. Much committee-work has been done, and, we believe, done well; but the Association needs to be more "in hand" to make it available by their general action.

One or two propositions were made looking to the establishment of a National Sanitary Bureau; a step which we think in such a country as this would be a great mistake. Far better would it be to leave these matters to the care of the medical men in the various States and regions, to be subjects of study and of competition on the part of those whose interests and opportunities would give them at once the stimulus and the capacity to deal with them.

Assuredly it seems as if this would be but a meagre showing, were it all that one man of average ability could produce in three years of labor. Let us not ignore the social advantage of the friendly meeting of men from different cities and States, or the benefits that individuals may have derived from such contact with their fellows. What we urge, and what we hope to see recognized at some future day, is that the business of the Association must be more positive and practical, more business-like, and transacted by, we repeat, and we may have to repeat many times, a body more truly representing the great mass of active practitioners throughout the United States; not by a mere congress of those whose leisure and inclination happened to make it convenient for them to attend the meeting.

CORRESPONDENCE.

HARVARD UNIVERSITY MEDICAL SCHOOL,
BOSTON, MASSACHUSETTS, May 14, 1873.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR:—My attention has been called to an editorial in the *Philadelphia Medical Times* of March 22, 1873, in which the following passages occur:

"The managers of the Medical Department of Harvard University are trying, *we should like to believe with satisfactory prospects*, a system of teaching radically different from that of any other school, at least in this country. . . . And yet there is one most important element,—the financial,—which threatens to fatally affect

the success of the Harvard School." Then Prof. Stillé is quoted as saying, "One institution, to its honor let it be spoken, has re-formed its whole plan of teaching upon the model which reason and experience agree in approving as the best. *Much as I desire in this instance to be a false prophet, I have little fear of meeting with the fate of one, when I declare with unfeigned sorrow my conviction that the Medical Department of Harvard University, which has so heroically undertaken so difficult a task without providing endowments for its professors' chairs, must of necessity fail to secure the success which its liberal policy deserves.*"

Both these writers warmly approve the new system of the Harvard Medical School, and both prophesy while they lament its failure. The last annual report of President Eliot furnished materials for a more hopeful view, which might have mitigated Professor Stillé's sorrow. On referring to Dr. Stillé's published address, a foot-note showed that the report mentioned had been consulted by him, but that the facts therein stated had been overlooked or misinterpreted.

A statement which had proved most encouraging to those immediately concerned had actually been used to strengthen the gloomy foreboding excited by the action of the Harvard Medical School.

We are informed that "Immediately on the adoption of the new system of instruction the number of medical students fell from 301 in 1870–71 to 203 in 1871–2. The Catalogue of the Medical Department from 1872 to 1873 gives the names of 170 students. Under the new system, therefore, the classes have thus far progressively diminished. The receipts have fallen off in the same proportion, and the professors have nearly twice as much work to do, with a remuneration only half as great as they formerly received.

"The result of this arrangement must necessarily be to compel men of real eminence to withdraw from professorships which are so meanly salaried, and to substitute for them young and immature teachers, who will regard their position in the medical college as a passport to reputation and practice, and who are willing to purchase the result by a few years of unrecompensed labor. By this plan the traditions of university education are set at naught, its dignity compromised, and its authority impaired. If any profession requires in its teachers the weight of character which maturity of intellect and ripe experience give, it is certainly the medical; but a plan which virtually excludes such qualifications by refusing to compensate them is too much in opposition to human nature and experience to succeed."

Now, let us look at the facts upon which these statements are based. President Eliot says:

"It having been granted on all hands that these changes were excellent and desirable in themselves, the only ground on which they could be opposed was that they were not feasible, in view of the fact that the entire endowment of the Medical School is only $40,000. The comparison, therefore, of the current receipts and expenses of the years 1870–71 under the old system with those of the year 1871–72 under the new system is of particular interest:

1870–71.

RECEIPTS.

Total receipts from students	$27,717 67
Interest on funds (Hersey, Jackson, Shattuck)	2,779 00
	$30,496 67

PAYMENTS.

For instruction (salaries)	$19,476 82
For janitor and general expenses	10,039 31
	$29,516 13

1871–72.

RECEIPTS.

Total receipts from students	$24,104 59
Interest from funds (Hersey, Jackson, Shattuck)	3,404 62
	$27,509 21

PAYMENTS.

For instruction (salaries)	$20,019 56
For janitor and general expenses	8,877 44
	$28,897 00

The number of students in 1870–71 was 301, while in 1871–72 it was only 203. Yet the receipts from students were only $3600 less in 1871–72 than in 1870–71. Many of the students present in 1871–72 were under the old system, and a considerable portion of these were entitled to gratuitous instruction, under the former rule that students paid nothing for the third year of attendance. The fact is that 150 students present during the year under the new plan would give a considerably larger revenue to the school than 300 did under the old. The corporation *paid rather more* for salaries in 1871–72 than was used for that purpose in 1870–71; but the sum appropriated for salaries was differently distributed. Excluding all items from both sides of the account which were not items of current receipt or expenditure, the deficit for the year 1871–72 was $1387 79.

The corporation had expected a much larger diminution of receipts from students in the first year of the new system, and were more than satisfied with the actual money result.

Let us now compare the deductions of Prof. Stillé with the facts presented in this clear exposition of the condition of the school. The following distinct points are made by the Professor:

1. Under the new system the classes have thus far progressively diminished.

2. The receipts have fallen off in the same proportion.

3. The Professors have nearly twice as much work to do.

4. The remuneration is only one-half as great as that which they formerly received.

5. The necessary withdrawal of these underpaid Professors, and a great variety of consequent evils.

We will now consider these points seriatim.

In regard to the diminution of the number of students, we must admit the fact, but this has been much less than was anticipated. But this diminution has no bearing whatever upon the main question, which is whether the number of students who join the school under the new plan is increasing or diminishing. The following facts show a constant increase. The first

students under the new plan were drawn from the ranks of those who entered under the old. These voluntarily subjected themselves in June, 1871, to the written examinations, as evidence of their appreciation of the change. At the opening of the school in the fall of 1871 a much larger number of new students presented themselves, and in September, 1872, there was still a very marked increase above the number of the preceding year. These statements relate to the first terms of the two years corresponding in time with the old courses of lectures. A still more satisfactory result is seen when we compare the attendance during the second terms, this being the real test of the willingness of students to accept an annual course, which is one of the distinguishing features of this school.

The number of students in the second term of 1872 was ninety-six, of whom twenty-one received gratuitous instruction, in accordance with an old custom to the benefits of which they were entitled. In the second term of 1873 the number rose to one hundred and thirteen, of whom only six were free, and these were sons or assistants of professors. The number not only exceeded that of the corresponding period of the preceding year, but was much larger than that of any class in the summer under the old plan, although then some students joined for a single month, and now all must take the entire term.

The *second* point was that the receipts had fallen off in the same proportion as the students. The latter, according to the figures, had diminished from 301 to 203, or 33 per cent. Mr. Eliot's figures show that the receipts had fallen off 15 per cent. This term *the receipts have exceeded those of the corresponding term of last year.*

The *third* assertion, that the Professors have nearly twice as much work to do, we are glad to say is true in some important departments, to which sufficient time had not been given by the old system. The quantity of teaching has been largely increased; but this increase has been effected mainly by adding to the number of teachers. The Professors whose work has been increased have gladly given the additional time.

The *fourth* statement, that the remuneration was only one-half as great as before, notwithstanding the increase of work, is certainly not derived from the report, as that document states explicitly that *more was paid for salaries than in the previous year.*

Some changes were made in the distribution of this sum, according to the amount of instruction given by the different teachers.

In regard to the *fifth* point, its prophetic character of course makes a final answer impossible at present. It can only be said that up to the present time no Professor has resigned who had not announced his intention to do so before any change was thought of, and every one acquainted with the present composition of the Faculty will admit that it was never stronger than now in professional reputation, and it was never so numerous, so united, or so well satisfied with its work.

The kind of gloomy though pitying prophecy in which Dr. Stillé and the writer in the *Philadelphia Medical Times* indulge is simply one of the natural obstacles which the new system has to overcome. The Harvard Medical School has overcome much more serious obstacles already in contriving and carrying out for two years this great reform in medical education, and has the best prospects of speedy success, in spite of the competition of all the principal schools in the country, which continue to offer medical degrees on the old easier conditions. If five or six of the other leading medical schools in this country would join the Harvard School in making the changes in the system of medical instruction which Dr. Stillé and all other intelligent physicians who honor their profession admit to be desirable, there would be no question in any one's mind about the success of the reform.

Yours truly,

C. Ellis, M.D.,

Dean of the Medical Faculty of Harvard University.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

Semi-Monthly Meeting, May 14, 1873.

Reported by James S. Bailey, M.D.

Dr. Henry March in the chair.

After the reading and approval of the minutes of the last meeting, the Secretary read a letter from the clerk of the Common Council, stating that by resolution of that body the members of this Society were requested to give their opinions in reference to the purity of the waters of the Hudson as a supply for the city of Albany.

By resolution, this subject was ordered for discussion at the next meeting, May 28.

Dr. James S. Bailey stated that one of the members of the Albany County Medical Society, Dr. Peter P. Staats, had completed his fiftieth year in the practice of medicine. He would move, therefore, as customary heretofore, that a committee be appointed to make arrangements for the celebration of Dr. Staats's fiftieth anniversary.

Dr. John M. Bigelow, after seconding the resolution, moved that, as the meeting was not a full one, the resolution be postponed until the next meeting. Carried.

HOSPITAL HYGIENE.

Dr. Isaac De Zouche read a paper on *hospital hygiene.* In the earliest times, before medical colleges had existence, or boards of health had a place among existing institutions, there were, nevertheless, some excellent ideas on the subject of health,—ideas that have not been much improved upon during the last two or three thousand years.

Moses, the lawgiver of the Hebrews, gave very explicit and excellent directions concerning food, cleanliness, and general sanitary regulations, many of which might be followed with advantage even now.

There was something other than mere fanaticism in the Jewish discrimination between clean and unclean beasts, and in their proscription of certain parts of even clean beasts as articles of food. Then their laws in regard to the purifying of parturient women, the cleansing of leprosy, the isolation of all infectious or offensive

cases, the removing of the dead from contact with the living, the frequent ablutions insisted on in all cases, go to prove that Moses was a sanitarian of the most enlightened and practical stamp; a worthy leader of the people in their struggle for a higher life.

The name of the subject, Hygiene, recalls other people than the Jewish. However irrationally the old Greeks and Romans lived, they furnished us with many valuable hints on life, health, and many other subjects.

Their goddess of health, Hygeia, was said to be the daughter of a physician, Æsculapius, who was the son of the god Apollo. To be sure, all this is mythological. The physician does not always spring from deity, nor is his daughter invariably a goddess of health: still, there is enough truth in the myth to warrant its acceptance even now as an article of faith. A subtle meaning underlies the thought that a goddess presides over health: that she sprang from a physician may mean that she was the legitimate offspring of the most advanced expression of sanitary science. But we must leave mythology, however attractive, and come down to facts, however dry. There is, or should be, nothing special in hospital hygiene; for the means by which health may be conserved or promoted should have, and really must have, a universal application.

The hygienic measures essential in a hospital are demanded in every private dwelling, only perhaps there is more urgent need of them in the former, where so many are congregated under one roof and all with health more or less impaired.

The site of a hospital should invariably be in the healthiest part of the city or district, so that in fighting disease the physician should not have native enemies in the camp to contend with. It is of little avail to treat intermittent fevers in a low marshy neighborhood, the home of malaria. "The site of a hospital," wrote the late Edwin M. Stanton, "should be well drained with a subsoil of gravel. The situation should be elevated, as remote as possible from marshes or other sources of malaria, and must have a convenient supply of pure water."

In an elevated situation we have the requisite condition for good natural drainage; but even then we must have the subsoil of gravel, for if it be of clay there is sure to be an injurious amount of moisture, and this subsoil moisture plays no mean part in the inception and continuance of many infectious and epidemic diseases. The high situation and natural drainage insisted on are not intended to supersede artificial drainage, but rather to divide or supplement the work of keeping the site as free from dampness as possible. Hammond urges strongly the necessity of examining into "the character of the soil and subsoil, for if the site be chosen regardless of these points, disease, either fevers, bowel-affections, rheumatism, or catarrh, will inevitably be produced."

Besides the natural drainage which is the result of an elevated situation, we have as a second important result a much freer circulation of air than is possible on a low level; and this is almost as important as the drainage. Stagnant air is as much to be feared as stagnant water.

The drains leading from the building should be so planned that their course towards the main sewer shall be as direct as possible, without unnecessary angles or tortuosities.

In their construction it would be well to remember that *stagnation* is *death*. There should always be provision for a stream of water passing through, to carry the sewage with it and prevent any accumulation of organic refuse. There should be at the same time good drain-ventilation,—the ventiduct leading to the top of the building,—that the noxious sewer-gases may not invade the house, bringing typhoid and other diseases in their train.

The best plans for hospital buildings, according to the best-informed authorities, embrace what is known as the pavilion system; that is, separate buildings, or wards totally separated from each other, merely accessible by a common corridor.

The space between any two wards should be sufficient to preclude the possibility of the spread of contagious diseases or matter through the open windows. With this form and arrangement of a hospital we secure two very important points,—a free circulation of air, and unobstructed light.

It would be all the better if these separate buildings were only one story high; but space is usually too valuable in situations suitable for a hospital to permit of so great a sanitary luxury.

When there are two or three stories, the separation of each from all the others should be as complete as possible. There should not be any openings directly from the lower wards into the upper.

The stairways should be so placed that the foul air from below cannot ascend through them to mingle with the air of the upper wards. The true principle of ventilation is to provide for all impure air being carried away out of the building from each floor.

When the windows of the lower wards are open, I would recommend that over each there should be a projecting canopy, arranged in such a way as to lead the impure air from the ward as far out from the face of the building as possible, so that no portion of it shall enter the open windows of the upper wards.

The floors should be far more solid and air-tight than contractors usually make them, and between the rafters there should be a packing sufficient to bar the passage of air from below, and at the same time to deaden the sounds of feet and other noises above.

In an address to the Southampton Medical Society, Langstaff lays much stress on the importance of having a great number of small separate rooms, instead of the few large ones which we constantly find in large hospitals; but, as we cannot hope to see any great change in the construction of existing institutions of the kind, he proposes to make the best of what we have. He, as well as other physicians whom he mentions, has found that the floors and walls of a hospital after continued use absorb matter which leads to the outbreak and spread of diseases, and that it is needful to apply to them a new absorbent material and one that can readily be cleansed. Recognizing the great value of lime as a purifier, he nevertheless believes that whitewashed walls very soon absorb the poison from the sick-bed, and require to be frequently removed.

The best method, he believes, of rendering hospital walls and ceilings non-absorbent, is to paint them on a smooth surface with several coats of paint, and finally varnish them.

The floors might be made non-absorbent by painting them with hard paraffine previously melted in an iron vessel, and ironed in with a box-iron heated from the interior with charcoal.

Under no circumstances should there be paper on the walls of a hospital ward or carpet on the floor, as they absorb and retain for an indefinite period the poisonous germs that arise from disease, and thus render the room unsafe for future occupants. Neither should patients, nurses, or house physicians wear woollen articles of clothing, as they tenaciously hold the "hospital smell," which is always at least suggestive of contagion.

In ordinary dwellings, where the inmates are as a rule healthy, the usual means of ventilation by windows and doors answer the purpose very well; but in a hospital, where medical and surgical diseases prevail, and

the air becomes laden with the foul exhalations from every variety of decaying tissue, it is of the utmost importance to take advantage of every means by which pure air may enter and the impure escape most effectively.

Now, pure air, as a rule, enters a living-room at the lowest openings, whilst the air which has become vitiated by having passed through the lungs, or contaminated by contact with the exhalations from the surface of the diseased body, ascends to the top of the room, and will escape more or less completely by the highest openings. I qualify the statement, believing it will not wholly escape unless the highest openings are at the highest point in the room, on a level with the ceiling. The lower openings should be at or near the level of the floor.

The exhaled air is largely composed of carbonic acid gas, which, at the same temperature as the pure air, is much heavier than it, volume for volume.

When first exhaled, being expanded by heat, its specific gravity is less, and it ascends, to escape measurably by such openings as there may be; but if proper provisions have not been made above for its departure at this time, it quickly condenses and sinks to the lower part of the room, where it is destined to struggle with the pure air, provided there are inlets.

Now, if there are openings at the level of the floor on all four sides of the room, there will be better opportunity for the accumulation of this poisonous gas, which would escape on the side of the room which sailors call "leeward," impelled by the pure air entering at "windward." The upper openings in the room should be somewhat larger than the lower, for obvious reasons; and I think it important that they should be at the level of the ceiling. When this is neglected, there will always be a reserve of deleterious gases found hovering about the angles, and tainting the whole upper stratum of air in the room, to the great detriment of the patients, to whom the oxygen of the pure air is even more essential than calomel or quinine.

Water-closets should invariably be placed at the boundary walls, each with a window admitting an abundance of sunlight and giving the opportunity for the ingress of pure and the egress of noxious air, and all this besides the ventilation proper to the soil-pipe. Water-closets should never be constructed in dark corners in the centre of a building; for, however thorough the system of ventilation may be, there will always be at least a strong suspicion of impurity in the air,—a suspicion that will hardly bear the test of chemical analysis.

A bath-room on each floor, to which patients should be introduced on admission, and obliged to use at least twice a week during their stay in the hospital, will prove a valuable auxiliary in the sanitary work. With good drainage, a constant supply of pure air, and a persistent regard for personal cleanliness, the doctor's work would be simplified and the proportion of good recoveries be greatly increased.

The regulation of the temperature is a matter of very great importance, and, I may add, of great difficulty too, with such heating-apparatus as we find generally in use. So long as the air we breathe is kept below 65° Fahrenheit, it acts as a stimulant to the lungs, which accordingly work with more vigor to keep up the heat of the body in the natural way. Combustion goes on more or less perfectly, and the effete products of decay are rapidly expelled from the system. But when we permit the temperature of the living-room to reach 70° or upwards, nature recognizes the wrong and protests against it. The lungs, to be sure, do not cease to act, but they seem to lose time and work more languidly; the combustion of effete material going on so slowly, much of it lingers in the system to poison the blood and deaden the fire of life.

The effect of continuous high temperature, especially when artificial, on even healthy people, is a relaxation of muscular fibre, superinducing a listlessness almost amounting to paralysis of the will.

Special care should be taken to classify patients according to their diseases and the measure of their sickness. Cases of erysipelas, hospital gangrene, some fevers, and contagious diseases, which may have found their way into the hospital or become developed there, should be isolated in the upper story of the hospital, when it consists of more than one story.

During the prevalence of erysipelas, hospital gangrene, syphilis, etc., sponges should never be used; tow or rags, which should be burned after once using, might be substituted with advantage in dressing wounds and ulcers.

In regard to the size of hospitals, there is a growing belief that the larger they are the worse it is for the patient. Amputations become more dangerous and fatal in proportion as the hospitals in which they are performed increase in size. By separation and isolation the patients recover with more certainty. The safety is in segregation, the danger in aggregation. In the Edinburgh *Monthly Journal of Medical Science* for November, 1848, Sir James Y. Simpson wrote on this subject an article in which will be found the following: "Perhaps one of the most weighty and momentous questions to which the physician, the surgeon, and the accoucheur can direct his attention is the proper reconstruction and arrangement of our hospitals. The vast importance of the subject depends upon this point, that it involves the study and rectification of influences that set utterly at defiance all the proudest advances of practical medicine."

Sir James speaks of the signal and striking progress made by surgeons during the last fifty or one hundred years, in various ways, and yet, notwithstanding all that, the proportion of fatal results of operations has been steadily increasing. "Amputation, for instance, as an operation, has, like many other operations, been mightily improved in the modes of its performance, in the modes of arresting attendant hemorrhage, in the modes of dressing the stump, etc.; but still in these hospitals [the infirmaries of Edinburgh and Glasgow] the mortality from limb-amputations has, since the last century, become increased instead of diminished. The increase is traceable, I believe, chiefly or entirely to our system of huge colossal hospital edifices, and to the hygienic evils which the system has hitherto so much involved.

"I have often stated and thought that if our present medical, surgical, and obstetrical hospitals were changed, from being crowded places with a layer of sick on each flat, into villages or cottages with one or at most two patients in each room, a great saving of human life would be effected."

To substantiate what he says, Sir James gives facts and figures which throw much light on the subject. The following are suggestive tables showing the proportionate mortality of limb-amputations in Great Britain as regulated by the size of the hospital and the degree of aggregation or isolation in which the patients are placed:

1. In hospitals containing 300 to 600 beds, 1 in 2½ die.
2. In hospitals containing 100 to 300 beds, 1 in 4 die.
3. In hospitals containing 25 to 100 beds, 1 in 5½ die.
4. In cottage hospitals containing under 25 beds, 1 in 7 die.
5. In isolated rooms in country places, 1 in 9 die.

These few figures teach a lesson of vast importance in relation to hospital hygiene; and they seem to discourse so plainly as to require no comments.

In studying the sickness and death-rates of communities and all the conditions under which we get the

statistics relating to them, we furnish ourselves with the weapons necessary to fight and conquer a thousand ills that decimate the population of our cities.

The proportion is large of those who die from preventable causes, to some of which I have referred in this paper.

This subject is well worthy of our consideration as physicians; and this fact has induced me to address you in regard to it.

RHEUMATIC PERITONITIS.

Dr. JOHN M. BIGELOW said that rheumatic peritonitis is regarded by some as a hypothetical disorder, by others as extremely rare.

Niemeyer remarks, "Peritonitis very rarely occurs in persons previously healthy, and its occurrence in them is due to catching cold or to some unknown atmospheric influence. It is then called rheumatic peritonitis."

Rokitansky asserts that "spontaneous or rheumatic peritonitis exists," and attributes it "to the metastasis of anomalous exanthematous processes or of rheumatic poison which tends to exudation;" but he fails to inform us of the nature of the morbid material or of its method of generation.

Flint observes "that exposure to cold may originate peritonitis," and, excepting by reference, says nothing of the probable origin of peritonitis as due to poison in the blood.

Habershon, from an analysis of five hundred cases of peritonitis, explicitly asserts that "peritonitis is never idiopathic in its origin, but when not traumatic or due to perforation of the viscera it is dependent on either an extension of diseases from adjoining viscera or on certain blood-changes, such as occur in albuminuria, pyæmia, rheumatism, etc."

Todd also indirectly affirms this conclusion by stating that "the poison of rheumatism is akin to that of pyæmia as the originator of peritonitis." Tanner strengthens these statements by ascribing as a cause of peritonitis "the contamination of the blood by morbid poison." Rheumatism is now regarded as the product of a morbid intrinsic alteration of the blood, by which lactic acid, a morbid poison, is produced: hence Tanner may by implication support Habershon's statements.

We also assert that previous attacks of rheumatism in early life from six to ten years of age furnish a predisposing cause to the subsequent peritonitis of youth or of adult life. This may afford an explanation of the origin of an attack of peritonitis otherwise inexplicable.

Again, we sometimes, though very seldom, meet with a family among whose members the slightest cold or digestive derangement provokes pains in the joints and muscles, and a general pyrexia. In a few days these symptoms disappear suddenly, and, coincident with their cessation, tympanitis, abdominal pain, troublesome diarrhœa, "colicky" pains, and a severe illness of several days' duration, set in. Sometimes, though very rarely, sudden death occurs. In these last cases there would seem to be a hereditary predisposition to rheumatic fever, and to the election of the peritoneum as the especial object of the baneful attack. When we recollect that after the puerperal state sometimes symptoms of ordinary rheumatic fevers are manifested, such as the profuse sweat, the swollen joint, the intense fever, the lithic-acid urine,—in fine, a state called by some French writers "puerperal acute rheumatism," due to some inflammation of the uterine veins which infects the blood and begets articular, peritoneal, and other inflammations,—when we recall such instances of the action of morbid material in the blood, why should it be deemed incredible that in the course of an attack of rheumatic fever a "morbid poison" due to some vital hæmatic change induced by disease may be born in the blood, and finally select the peritoneum, a serous membrane, as its particular prey?

The rheumatic poison does frequently attack the heart, the pericardium, the pleura, serous membranes, the meninges of the brain: why, then, can it not invade the peritoneum, a serous membrane, and even more likely to recover when attacked?

ANATOMICAL CHARACTERISTICS.

We have only seen the autopsy of one case of so-called rheumatic peritonitis. The lesions were those of diffusive peritonitis. The exudations were, however, serofibrinous, and abundant lymph was plentifully present, and formed a thin coating over the hollow viscera and other parietal portions of the peritoneum. The peritoneal sac contained a fluid turbid with lymph. More or less abundant small abscesses were also scattered throughout the intestines, and were found to contain a sero-purulent fluid of a greenish cast. Cleared of exudation, the peritoneum was brittle, softened, and in spots deeply injected.

The adhesions between the intestines and other viscera were slight and easily separated, and very extensive, compassing the whole peritoneal cavity.

The urine was rather scanty, of a deep saffron color, specific gravity 1029, and exhibited traces of the urates, and was also slightly albuminous. Excepting a slight effusion in the chest, there was no evidence of any previous disease of the pleura or lungs.

CLINICAL HISTORY.

Rheumatic peritonitis is of a gradual development. A chilly feeling prolonged and general, or a severe chill, with subsequent pains in the joints or neck, a sense of general soreness, "a pounded feeling," admonishes the subject that some sickness threatens. There is slight fever, exacerbating towards evening; a dark puffy appearance under the eyes also is apparent. This condition may last for two or three days, when there will be noticed a tendency to an intermittent colicky diarrhœa, flatulence, depression of spirits; furred tongue, which in the morning may be rather dry and glossy, but towards evening becomes slightly moist, pallid, and flabby around the edges; anorexia; the chin at times becomes slightly rosy, the mouth pallid, the sleep restless; the subject complains of "a bad cold which has settled over the whole system," and of a pain in the abdomen, for which pressure, cathartics, or other remedies fail to bring relief.

The temperature at this time ranges from 102¾° Fahr. evening to 101¼° Fahr. morning; the pulse from 100 to 130 per minute.

A slightly heavy feeling in the top and back of the head is complained of; great prostration, disproportionate to the severity of the symptoms present, is noticeable.

Or, again, the sufferer will be laboring under a rather mild attack of acute articular rheumatism; or, thirdly, rheumatic fever in its most painful form may plainly exhibit itself. In all these cases the unusual prostration above mentioned enforces early attention.

This attack of apparently rheumatic fever in its mild or more aggravated form fails to yield to the usual measures, when suddenly the articular pains cease; a sense of general chilliness is now complained of, and abdominal pain and tenderness are markedly present; in a short time symptoms of diffusive peritoneal inflammation clearly show themselves. The change of the attack is abrupt; the peritoneal disease is quickly declared, and is in most cases supplemental to the sudden disappearance of general physical disturbance.

Continued pain is a very prominent symptom; it is generally diffusive; very rarely it is wanting; occasionally it is paroxysmal; coughing, sneezing, and deep

inspirations aggravate the pain; the respirations are consequently shortened in length and increased in frequency.

Pressure and sudden change of position likewise produce severe distress. The knees and thighs are generally fixed; though sometimes the dorsal or lateral decubitus is tolerated and affords great relief.

Tympanitis is always present to a considerable extent; constipation, due to paralysis of the muscular coat of the bowels by collateral œdema, is the rule; diarrhœa is a not unfrequent exception; vomiting seldom occurs. The pulse is frequent and small,—120 to 135 per minute; the temperature fluctuates between 101½° Fahr. to 103° Fahr. or even to 106° Fahr. The mind is generally quite clear; muscular rigidity is frequently present. As the abdomen becomes distended with flatus, the intestines, now literally blown up with gas, press up against the diaphragm, causing compression of the lower lobes of the lungs, excessive hyperæmia of the uncompressed portion, and dyspnœa. This disturbance of the pulmonic circulation may extend to the venous system and impart to the patient a cyanotic hue.

"The anxiety of the patient is painful," and the alternate appeals for relief and utter despair reflect his intense bodily suffering and mental anxiety. At last the mind becomes cloudy, the sufferer grows apathetic and delirious,—sometimes comatose; the pulse becomes smaller and more frequent; the body is covered with a cold sweat; asthenia supervenes, and the patient succumbs to the malady.

Should the subject linger for some time, the tympanitis decreases, but never wholly disappears; the fever exacerbates, consumes the strength and every tissue; the skin becomes dry and scaly, the muscles flabby and relaxed, the limbs swollen and œdematous, and death occurs in the third or sixth week by asthenia.

Convalescence, if established, is tardy and lingering; it is attended by more or less colicky pains, abdominal tenderness, and asthenia. Three or four months may elapse before natural vigor and strength begin to return.

Most of those attacked with peritonitis die of the disease, "not because this affection is particularly ill borne by the organism," says Niemeyer, "but because it depends on the severe blood disease;" and he further observes, "We frequently see the rheumatic peritonitis which occurs in otherwise healthy persons terminate in cure, providing the exciting causes be removed soon enough."

Flint states that in uncomplicated cases the prospect of recovery is good under judicious and early treatment. This peritonitis may destroy life in twenty-four hours or in fourteen days. The average duration, when convalescence or tardy development of the disorder does not take place, is five or six days.

The significant symptoms of rheumatic peritonitis are the sudden cessation of general articular pain and rheumatic symptoms, and the almost concurrent pain, tenderness, and tympanitis in the abdomen; besides these symptoms, undue prostration and laborious dyspnœa indicate great danger. The mode of death is by asthenia. As Flint observes, "a progressive increase of the frequency and feebleness of the pulse, progressively increasing prostration, coldness of the hands and feet, hiccough, etc.," presage an unfavorable advance in the disease.

When these symptoms improve, and the tympanitis and muscular rigidity diminish, we may entertain hopes of recovery, or, at least, of delay of the more imminent symptoms of death.

DIAGNOSIS.

Peritonitis is readily diagnosed from all other diseases after its development, as the tenderness on pressure, tympanitis, "colicky pain," and "belly-ache," at once distinguish it from all other disorders. Rheumatic colic, lumbo-abdominal neuralgia, hysteria, mesenteric neuralgia, hyperæsthesia of the skin of the abdomen, may each simulate peritonitis; but a careful study and analysis of the symptoms, and the amenableness to treatment of the above disorders, and the stubbornness with which peritoneal difficulty yields to remedies, as well as the element of time, will generally afford an easy discriminative diagnosis.

TREATMENT.

The treatment of rheumatic peritonitis consists mainly in rest, opium, and permanganate of potassa, with a liberal use of nourishing beef-broths, milk, and alcoholic stimulants. When there has been time to prescribe for the rheumatic disorder prior to the peritoneal invasion, permanganate of potassa in $\frac{1}{12}$ grain doses should be given every hour; the bowels should be opened by an enema, and opium given freely, so as to relieve pain, subdue inflammation, and secure rest. Gelseminum also has been recommended, and, by some, is said to be successful when given in the form of the fluid extract in three-minim doses every hour. Quinine also may be employed with a view to its tonic effects. Externally, leeches, rubefacients, turpentine, also spongio-piline and hot-water applications, are well spoken of by authors. Besides these, Niemeyer says "that cold compresses to the abdomen exert a most beneficial effect;" and he agrees fully with those who consider the application of leeches to the abdomen, the use of cold compresses, and the internal administration of opium as the most effective treatment.

Flint and Professor A. Clark each assert that our main reliance in treatment is opium, given fully and freely.

Cathartics, mercury, and blisters are alike condemned by most clinical observers and successful practitioners; although there are those who affirm that epispastics do frequently afford relief, and that mercury does arrest or check the inflammation.

When an early dyspnœa and cyanosis admonish us of the imminence of fatal symptoms, venesection as a temporary expedient may, as Niemeyer observes, be resorted to; for we know of no other remedies to fulfil this urgent indication.

To relieve vomiting, ice is best administered; to check the diarrhœa, opium is to be preferred to all other astringents: as the flux is due to œdema of the intestinal mucous membrane, opium is as beneficial as astringents. When convalescence is established, cod-liver oil and quinine should be liberally prescribed. If the exudation be great, iodide of potassium and acetate of potassa in small doses should, if borne, be ordered in connection with the various preparations of calisaya bark. Above all, fresh air, judicious exercise in the open air, nutritious diet, and quietude of body and mind, should be strictly enjoined.

Cathartics should be given with great caution, and not for at least six weeks after recovery; enemata are to be preferred.

The tendency to frequent relapses should always be borne in mind, and fatigue, exposure to cold, and inattention to diet strictly forbidden.

We shall now narrate the history of a few cases illustrative of this subject.

M. B., æt. 18, by occupation a shop-girl, was attacked by acute articular rheumatism on February 12, 1873, and presented all the symptoms of this disorder for two successive weeks, when on the morning of the 26th of February the articular pains suddenly subsided, and abdominal tenderness, tympanitis, and the symptoms of rheumatic peritonitis developed themselves in the sequence mentioned in this paper. The undue prostra-

tion was early manifested, the fluctuating temperature from 101° to 105° Fahr. plainly present. The permanganate of potassa in $\frac{1}{16}$ gr. doses, opium freely and pro rata to the disease, nourishing broths, and turpentine stupes, constituted the treatment. After an illness of seven weeks she recovered, but at the present time she has not by any means regained her wonted vigor or strength.

J. H., male, æt. 21, carpenter, was attacked, December 23, 1872, with slight symptoms of rheumatic fever; complained of a "pounded feeling" over the whole body, and of general soreness; had no articular pain excepting in the wrist. About one week afterwards he was attacked with peritonitis.

Under the treatment previously spoken of, recovery took place, so that he resumed his occupation March 18, 1873.

In addition to these, we have the notes of two other cases which have recovered under appropriate treatment, as well as the record of two cases which died, one in four days, the other in two weeks after the first symptoms of general peritoneal rheumatic disorder developed themselves.

Were it not for the full description of this malady—rheumatic peritonitis—in our preceding remarks, we should give in ample detail the clinical notes of the above cases.

(To be continued.)

REVIEWS AND BOOK NOTICES.

A Hand-book of Medical Electricity. By Herbert Tibbits, M.D., L.R.C.P. Lond., etc. 8vo, pp. 164. Philadelphia, Lindsay & Blakiston, 1873.

Dr. Tibbits is already favorably known as the translator and editor of Duchenne's "Localized Electrization," and the work he now offers to the profession will, we have no doubt, be well received. As he has large experience, both in hospital and in private practice, he is well fitted for the task he has undertaken.

The object of this book is to give to physicians in general a practical and concise treatise on the employment of electricity as a therapeutic agent, and, avoiding all mooted questions, to collect from the best authorities whatever is important on the subject. The author expresses a desire to place the matter before his readers in such a way as to make them "as much at home with their electrical as with their other instruments." This ought to be the case. Electricity is becoming every day better known as a means of great value in the treatment of certain forms of disease; and, as batteries are now being extensively made, and at a much lower price than formerly, every physician should have this form of treatment at his disposal.

The instruments described in the first part of the book are only those which Dr. Tibbits, from personal experience, believes to be the best. With the exception of Stöhrer's apparatus, they are not much known in this country, and, judging merely from the description given here, they are not superior to our own batteries. Foveaux's portable battery for the constant current, which is recommended, besides being open to several objections, is by no means reasonable as to its cost. The price is £15 15*s.*, or about $88 currency, for a sixty-cell apparatus.

The manner of applying electricity is very clearly and admirably explained, and minute directions are given for the indirect method of electrization. This latter subject would, we think, be made more valuable by the introduction of Ziemssen's diagrams, which show the points of entrance of the motor nerves into the muscles.

In some instances the directions for electrizing the various organs are not so explicit as they should be. For instance, to galvanize the bladder we are simply told to introduce one electrode into this organ and another into the rectum; but we are not told how long the current should be allowed to pass, nor how strong it can be borne. In some cases the voltaic current causes considerable urethral irritation. In regard to electrization of the uterus, the only directions given are to apply the plates of a uterine electrode so that one will be on each side of the cervix. Nothing is said of intra-uterine electrization.

The author speaks in high terms of Dr. Radcliffe's method of applying electricity. This consists in charging the patient with the positive current. The plan is said to have been successful in some instances where other means have failed.

Franklinism, which has fallen greatly into disuse, is discussed at some length. In the hands of Dr. Tibbits it has proved of value, and it is recommended to be tried where faradism has failed. It is most useful in hysterical aphonia and in the various forms of tremor.

The chapter on electro-therapeutics gives several illustrative cases, which show strikingly the benefits to be derived from this form of treatment.

Although as a whole the work is very valuable and we strongly recommend it to all who propose to use electricity, it would have been better had it gone somewhat into the elementary science of the matter. There is no description of the modus operandi of batteries; and unless a physician is acquainted with this part of the subject, he is not fully competent to make use of electricity.

The book is a reprint from the English edition, and is well gotten up. The printing, paper, and binding are as good as possible. The less said about the illustrations the better; but they are no worse than in the original copy.

Notwithstanding the apparent good size of the volume, the print is so large and the margins are so wide that there is comparatively little reading-matter. The whole book can be read through in an evening.

Had some of the larger woodcuts, which are of no use to any one, been omitted, the volume could have been made much smaller, and the price reduced one-half.

The Mechanism of the Ossicles of the Ear and Membrana Tympani. By H. Helmholtz, Professor of Physiology in the University of Berlin, Prussia. Translated from the German, with the Author's permission, by Albert H. Buck and Normand Smith, of New York. With twelve Illustrations. New York, William Wood & Co., 1873.

We hail with pride the appearance of an English rendering of this invaluable work of the great physiologist; for, as the translators say in their prefatory notice, this treatise, which first appeared in *Pflüger's Archiv für Physiologie*, Bonn, 1869, "is the only treatise in any language which enters fully into the anatomical, physiological, and mathematical aspects of the question, and will undoubtedly remain, for many years to come, the authoritative treatise on the subject."

The book contains sixty-three octavo pages, divided into eight chapters; the first four having been translated by Dr. A. H. Buck, and the remaining four by Dr. Normand Smith.

The subjects treated of under these eight heads are as follows:

1. Results due to the small dimensions of the auditory apparatus.
2. Anatomy of the membrana tympani.
3. Attachments of the malleus.
4. Attachments of the incus.

5. Movements of the stapes.
6. Concerted action of the bones of the ear.
7. Mechanism of the membrana tympani.
8. Mathematical appendix: having particular reference to the mechanism of curved membranes.

"The membrana tympani is not to be considered as an elastic, yielding membrane, but as an almost inextensible one. This peculiarity of construction of the membrana tympani is a very important element in the mechanical working of this membrane." This is the substance of the second chapter.

In the third chapter the important "axis-band" of the malleus is explained, besides the other complicated ligaments which hold this bone in its proper place.

In the fourth chapter the author describes the true nature of the malleo-incudal joint, as discovered by him.

"The shape of the last-named articular surface is usually described as resembling a saddle." The author, however, rejects this description, and says, "In order to gain a clear idea of the mechanism of this joint, it is better to make use of a different comparison than that of the surface of a saddle. It is, in fact, like the joint used in certain watch-keys, where the handle cannot be turned in one direction without carrying the steel shell with it, while in the opposite direction it meets with only slight resistance." As in the watch-key, so here the joint between the hammer and the anvil admits of a slight rotation about an axis drawn transversely through the head of the hammer towards the end of the short process of the anvil; a pair of cogs oppose the rotation of the manubrium inward, but it can be driven outward without carrying the anvil with it. This is perhaps the most important fact stated in the work.

The mathematical appendix, besides possessing its native difficulties, is vague in some parts of its translation, and on page 67 the word "*restore*" should be changed for the word *reduce*.

In the formulæ which follow, the radical sign should not be extended over *cos* ω in the equation of *r*, nor over *sin* ω *d*ω in the equation of *dv*. This inaccuracy does not occur in the original.

The translators have, as we think, judiciously, used Saxon words in the translation of the kindred German words. Thus, "*Nabel*" is translated *navel*, "*Hammer*" *hammer*, and not "*malleus*," "*Amboss*" *anvil*, not "*incus*," "*Steigbügel*" *stirrup*, not "*stapes*;" it is hardly, therefore, fair to translate the good old word *Gehörgänge* by the spurious Latin plural *meati*. We may perhaps be excused for lamenting the use of this unknown case of the word *meatus*, which, as we all know, is a regular noun of the fourth declension. Its plural, therefore, should be *meatus*, and not *meati*, as it stands in two places in the foot-note on page 41.

We may add, however, that these are but slight defects, in comparison to the real worth of the book, and we congratulate the readers of otological literature upon the reception of this, perhaps its richest gem.

C. H. B.

FAMILY THERMOMETRY: a Manual of Thermometry for Mothers, Nurses, Hospitalers, etc., and all who have Charge of the Sick and of the Young. By EDWARD SEGUIN, M.D. Crown 8vo, pp. 72. New York, G. P. Putnam & Sons, 1873.

This is rather a quaintly written work, the general scope of which is sufficiently indicated by its title. There is much in it which is true and good, although we cannot reckon among all the mothers of our acquaintance a single one who would be likely to accept and follow it as a guide.

Dr. Seguin would have every mother furnished with two thermometers; one like the ordinary instrument for medical use, the other with its bulb flattened down for application to surfaces. In each, the zero is to be the normal temperature of the body, or 98.6° Fahrenheit, and the plan is thus shown (page 13):

"PLAN OF THE MOTHER'S THERMOMETER.

Degrees above o	7	No well-authenticated recovery.
(thus written):	6	Generally death.
	5	Often fatal.
	4	High fever.
	3	Considerable fever.
	2.5	Moderate fever.
	1.5	Slight fever.
	o	Standard of health, NORMÆ.
Degrees below o	.5	Sub-normal.
(thus written):	1	Depression.
	2	Collapse.
	3 to 4	Algid collapse.
	4 to 5	No known recovery, except in cholera."

A chart for recording the temperatures, pulse, and respiration, for the period of a week, is given at page 15.

Our author goes into this whole matter (and many others) with much Gallicism and expansion, and often in a style far above the comprehension of mothers of ordinary calibre of mind. We can scarcely think his labors will have a very wide influence, although we concede the soundness of his views and the justness of his teaching.

THE PASSIONS IN THEIR RELATIONS TO HEALTH AND DISEASE. Translated from the French of Dr. X. BOURGEOIS, by HOWARD F. DAMON, A.M., M.D. Small 8vo, pp. 201. Boston, James Campbell, 1873.

A book more suggestive of evil has seldom been submitted to us for review. We do not think there was any occasion for the writing of it for French readers, or for the translating of it for the American market. It is much to be regretted that Dr. Damon has given the sanction of his name to such a work.

GLEANINGS FROM OUR EXCHANGES.

SUDDEN DEATH FROM THE LODGMENT OF FOOD IN THE BRONCHIAL TUBES.—By Dr. Féréol (*Le Mouvement Médical*, April 26, 1873).—Dr. Parrot pointed out, five years ago, a cause of sudden death in young infants, which has not since, in France at least, attracted the attention of physicians. An infant, after being nursed, is put to bed in perfect health; on the following day it is found to be dead, or else it awakens in the night, and is taken with vomiting and dyspnœa, by which it is quickly carried off. At the autopsy, the bronchial tubes are found to be filled with coagulated milk, and the neighboring pulmonary tissue is found to be softened and to exhale an odor of butter.

Dr. Parrot has lately reported to the Biological Society (see *Le Mouvement Médical*, No. 13, p. 163) another case similar to the one reported by him in 1868.

Dr. Féréol states that he had under observation in 1869, in the Hospital for Incurables, a patient whose case, notwithstanding the difference in the age, nature of the food, etc., bore a strong resemblance to the cases reported by Dr. Parrot. The history of the case is as follows:

Antoine L. was admitted, when a young man, into the Hospital for Incurables. He is now 55 years of age; his intelligence has always been of an extremely low

degree; his appetite is extraordinarily voracious, and the patients and attendants of the hospital often amuse themselves by giving him portions of their food or wine. The unfortunate man often suffers from dreadful attacks of indigestion, brought on by his insatiable gluttony. Sweats occur during these attacks; but the patient always recovers promptly, after vomiting and by rest in bed.

On the 8th of September, 1869, however, an attack of more than usual severity made him so ill that he had to be admitted into the infirmary. The attack was one of apoplectiform indigestion, which came on after the patient had gorged himself with wine and food of various kinds. His face was cyanosed, the extremities were relaxed, the breath had a distinctly alcoholic odor, and the patient was absolutely insensible to everything employed to arouse him. An emetic failed to have any effect, and dry and wet cups and sinapisms made no impression. The patient died at four o'clock in the morning, without ever having become conscious. At the autopsy the stomach was found to be considerably dilated and to be filled with a pulpy matter of a blackish color and having a sour and somewhat alcoholic odor. Pieces of undigested cabbage and fruit were also found, and the quantity of undigested matter in the stomach amounted, without exaggeration, to about three litres. The mucous membrane of the stomach was thin, soft, of a dark violet hue, and injected in an arborescent manner.

Masses of partially digested cabbage and lentils were found in the ileum and in the large intestine, as far down as the rectum. The right lung was perfectly healthy; half of the lower lobe of the left lung was hepatized, and presented the characteristic granulations of the second stage of pneumonia; the hepatized tissue was dense, and, when placed in water, quickly sank to the bottom. On opening the left bronchus and its ramifications, the mucous membrane was found to be of a violet-red hue, contrasting strongly with the normal color of the membrane as seen in the right bronchus. Further dissection of the bronchial tubes on the left side revealed a grayish material and fragments of foreign bodies, which at first sight were recognized as pieces of cabbage. Microscopical examination dispelled all doubt as to the vegetable nature of these fragments. The heart was healthy; in the aorta there were a few atheromatous patches, and a few of the same were found in the cerebral arteries. The brain weighed 1300 grammes, and did not present any marked lesion to the naked eye; there was a slight serous effusion in the meshes of the pia mater, and the meninges were slightly injected.

Without doubt acute alcoholism may have taken a certain part in the production of symptoms so rapidly fatal, but it is no less certain that the pneumonia, which itself advanced so rapidly, had for its special cause the passage of food into the bronchial tubes. It is probable in this case that, during the efforts at vomiting, regurgitation into the larynx occurred.

The analogy that exists between this case and those reported by Dr. Parrot is evident, and helps to strengthen the observations of our colleague.

Case of Resuscitation of a New-Born Infant after nearly Four Hours' Artificial Respiration (*Medical Press and Circular*, March 26, 1873).—Dr. J. Marshall, of Limerick, gives the details of an interesting case which demonstrates the value of artificial respiration even in cases that appear to be nearly hopeless. Dr. Marshall was sent for to attend a woman in her third pregnancy. She had been "attended" up to the time of her admission into hospital by an ignorant midwife. On examination he found the right arm and funis (pulsating) in the vagina, and, having returned the funis, he "turned" and delivered the patient of an apparently lifeless male child, so much so indeed that the funis was divided, without ligature, to see if any blood would escape from the child, the placenta having been born with the head. Not a drop of red blood issued from the cord, and the child never cried; while slapping, cold-water sprinkling, and brandy application failed to elicit the welcome symptom of life. However, when placed on a table and in the light, the pulsations of the heart were faintly visible; so artificial respiration was at once resorted to,—the first method tried being that of having one to breathe into the infant's lungs, and another to expel the air from the same. The infant, having been laid on its back and rolled in a warm blanket, was so placed that the head extended over the edge of the table, and was allowed to droop a little to prevent the air passing into the stomach. The child's face was next covered with a towel, and, the little nostrils having been compressed by the left thumb and forefinger of the operator (his right supporting the head), air was regularly but forcibly breathed into the lungs, and again expelled from them by an assistant's pressing alternately with his two palms on the infant's chest; brandy being vigorously rubbed into the chest by an attendant. The treatment, *after an hour's* steady prosecution, and the heart's action scarcely detectable, was rewarded with one voluntary inspiration, but had to be immediately renewed after the gasp, which showed no signs of recurrence without the artificial respiration. Another single gasp occurred in half an hour, but the inflation, etc., had to be kept up, as the breathing-apparatus had no strength whatever. Seeing the heart beating even so weakly, the attendants could not, nor were willing, to abandon the little struggler, and each took his turn at the "breathing;" the child got a couple of hot baths. Sylvester's and Marshall Hall's treatment were both tried, till, from a combination of all these remedies, the infant was breathing regularly at the rate of fifteen per minute, after *being inflated for nearly four hours*, Dr. Marshall not leaving till five o'clock, about half an hour before which time the first drop of blood from the funis tinged the water of the hot bath, in which the child was kept during its convalescence. Out of all the methods of resuscitation employed in this case, the breathing-in and expulsion of warm air had certainly the most beneficial effect on the infant, especially when the mouth-to-mouth breathing was combined with the raising and depressing the arms.

Pyuria in Little Children (Dr. R. C. R. Jordan: quoted from *Journal für Kinderkrankheiten*, Hefte iii.–iv., 1872).—The passage of pus with the urine of little children is not an uncommon thing, according to observations made in the children's hospitals of Birmingham. However, the author has never found a single case of idiopathic cystitis, so that the occurrence of the disease at the age of early childhood appears doubtful. He is of the opinion that the occurrence of pus in the above-named cases depends upon some obstruction preventing a free passage of urine, or from the local irritation of the bladder produced by the presence of a foreign body. In each of these instances a certain amount of urine will be retained, and become ammoniacal, thus inducing and keeping up the irritation. The ordinary causes are divided by the author into two classes: 1. An internal cause, viz., stone in the bladder or kidneys. 2. External causes—as congenital phymosis, hypospadiasis, etc. Rarely some cases may come under another head, as deposit of tubercles in the kidneys. If now any of these hinderances are present, distention of the bladder is produced, and when the cause of obstruction cannot be overcome, pus is formed by the irritation caused by the decomposition of the urine. A further result is the dilatation of the ureters, and at last cystic degeneration of the kidneys, with formation of abscess, and death.

TRACHEOTOMY IN PRIMITIVE CROUP (*Journal für Kinderkrankheiten*, July and August, 1872; quoted from *Clinical Gazette* of Palermo.)—The journal alludes to the fact that this operation has never been approved of heartily in Italy, because the operation is performed too late, as a last resort after the glottis has become narrowed, and after innervation of the trachea has been impaired,—in fact, after asphyxia has commenced.

MISCELLANY.

BOSTON DISPENSARY FOR SKIN-DISEASES.—The first annual report of this institution, recently published, contains much of interest pertaining to this subject. The report of the physician in charge, Dr. Edward Wigglesworth, a gentleman well known in connection with dermatology, shows that there were over eight hundred cases of skin-disease recorded for the year, constituting probably the largest clinic of the kind in our country. The report gives many varieties of cutaneous disease, and among the commoner affections we note, in the order of their frequency, eczema, acne, dermato-syphilis, psoriasis, and seborrhœa. There were but ten examples of scabies, while the vegetable parasitic diseases were also remarkably few in number. With the establishment and success of institutions in our large cities for the study and treatment of this class of diseases, dermatology is rapidly taking its place as one of the important specialties of medicine, and is as such obtaining the recognition which it rightly deserves. The institution just referred to, with Prof. Agassiz at its head, is a credit to our country at large.

THE following is an abstract of a table of medical societies in the United States, reported by Dr. J. M. Toner, of Washington, D.C., to the American Medical Association:

Total number of Medical Societies	405
Number of National Medical Societies	5
Number of Medical Societies in	
Alabama	20
Arkansas	7
California	13
Colorado Territory	2
Connecticut	11
Delaware	1
District of Columbia	4
Georgia	4
Illinois	29
Indiana	12
Iowa	10
Kansas	4
Kentucky	8
Louisiana	1
Maine	5
Maryland	4
Massachusetts	11
Michigan	14
Minnesota	4
Mississippi	3
Missouri	5
Nebraska	3
New Hampshire	2
New Jersey	23
New York	90
North Carolina	1
Ohio	15
Oregon	3
Pennsylvania	49
Rhode Island	2
South Carolina	4
Tennessee	2
Texas	5
Vermont	8
Virginia	11
West Virginia	3
Wisconsin	7
Total	405
Number of societies reporting number of members	360
Total number of active members reported	20,662
Total number of honorary and corresponding members reported	1,970
Total membership	22,632

THE GERMAN SURGICAL CONGRESS.—The second annual meeting of the Society of German Surgeons commenced on the 16th of April, when the members assembled in the hall of the University of Berlin, under the presidency of Herr von Langenbeck. A large number of the most eminent German surgeons were present, including, *inter alios*, Bardeleben, Baum, Billroth, Busch, Esmarch, Hueter, König, G. Simon, Textor, Volkmann, etc. Visitors from England, Russia, and Belgium, also assisted, Mr. Spencer Wells being among the number. Drs. Volkmann and Gurlt were appointed secretaries, and Dr. Trendelenburg treasurer. The scientific business was commenced with an address by Dr. Billroth, on the "Extirpation through the Neck of Large Cancers of the Tongue seated far back." This was followed by a paper by Dr. Busch, of Bonn, on "Wounds inflicted by the Chassepot Rifle at Short Distances." A large number of the members and visitors afterwards dined together.

As indicating the growing attention the subject of hygiene is receiving, not only from the public but from the medical profession, we are glad to see that *The Practitioner* (Macmillan & Co., London and New York) is to be enlarged by the addition of a department devoted to Public Health. The forthcoming number will contain, under this head, articles on Sanitary Organization in England; the Health Aspects of Sewage Irrigation; the Propagation of Typhoid Fever by Milk; International Hygiene in Relation to Plague and Cholera.

BARON ADOLPH DE ROTHSCHILD has founded and endowed a hospital for diseases of the eye, at Geneva, at an expense of £20,000, which is wholly borne by himself. Dr. Barde, of Geneva, is appointed medical officer to the hospital.

AN ITALIAN OVATION TO VIRCHOW.—The *Racoglitore Medico* lately appealed to Italian physicians to honor Virchow with a medal for his prosecution of studies in the manner adopted by Morgagni. The appeal was promptly answered, and the medal was presented to the German consul in Rome for delivery. The medal is one of the finest preparations of the celebrated Florentine artist Gori, exhibiting upon one side a finely executed image of Virchow, and on the other the inscription "A Rudolfo Virchow, dalla patria di Morgagni i medici Italiani MDCCCLXXIII."

"BABY-FARMING" IN WASHINGTON, D.C.—It has recently been discovered by the authorities that a female physician in Washington keeps a private lying-in hospital, the children born in which are "farmed out" to colored women. Two of the children were found at a filthy tenement-house in a street bearing the name of "Hog Alley." The keeper of the "hospital" does not claim to have had a regular professional education; she says she has reported the cases of midwifery under her charge to the Board of Health, but with fictitious names.

THE St. Louis *Democrat* is responsible for the following semi-professional obituary doggerel:

"Our little Sally did to heaven go,
Baby life so fleet is;
She was a victim to the cerebro-
Spinal meningitis."

TRICKS OF A "TRICK DOCTOR."—The *Washington Star* of May 3 contained the following:

"Several weeks ago a healthy-looking colored man was seized with illness and took to his bed. A physician (a regular practitioner) found that the case was an obstinate one, and the patient gradually became worse under his hands. Some of the sick man's friends insisted that it was the duty of the wife to secure the services of a 'trick doctor' or conjurer, who could ascertain what was the matter with him, and remove the 'spell' if any had been put on him. By her consent a 'trick doctor' was brought to the house. On his arrival he said that there were two ground puppies (whatever they are) in the patient's stomach. To determine to a certainty whether there was no puppy, one puppy, or two puppies in his stomach, the conjurer procured two small china dolls, and turning down the bedclothes he set them on the sick man's stomach, with their faces towards his, and ordered quiet in the room, saying that if they both fell off there were no puppies in the sufferer, and he would have to make another 'speriment; that if one fell off and the other remained on him, there was one ground puppy in him, and if in falling they bumped their china heads together, then 'there were two ground puppies in him, sure.' The friends around the bedside kept very quiet, and watched the motions of the china dolls with great interest, as they rose and fell with the movements of the sick man's chest, and when, in a few moments, the dolls made a pitch forward, bumping their heads together, there was a heavy sigh from the bystanders, with exclamations of 'Look dar, now!'

"The trick doctor, having by this ''speriment' satisfied nearly all present that there were puppies in the man, then tried the further ''speriment' of making a bargain with the wife for pay; but in this he was unsuccessful, she declining to pawn her husband's watch for this purpose, or to sell the furniture, and the 'doctor' retired without a fee. During the following night the patient died, and the wife determined to prove that there were neither puppies nor poison about. Accordingly she requested the regular physician who had attended her husband to make a post-mortem examination, and accordingly one was made. The cause of death was found to be a tumor of the liver."

A DENTIST FINED FOR GIVING CHLOROFORM (*The Clinic;* from the *France Médicale*, April 23, 1873).—M. Debaralle, dentist at Lille, was brought up before the *audience correctionelle* for having given chloroform without the diploma of doctor in medicine or officer of health, and for having through "*imprudence, négligence, maladresse et inobservation des règlements*" committed an involuntary homicide by chloroform upon the person of a woman named Caron.

The tribune decided that the administration of chloroform without a diploma was an illegal practice of medicine, and that the defendant was guilty of homicide. As he was guilty of two offences, he was fined 15 francs for the first, and for the second 500 francs, with imprisonment for one month.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM MAY 20, 1873, TO MAY 26, 1873, INCLUSIVE.

FRYER, B. E., SURGEON.—When relieved by Assistant-Surgeon Moffatt, to comply with orders received from War Department. S. O. 42, District of New Mexico, May 15, 1873.

FRANTZ, J. H., SURGEON.—Granted leave of absence for sixty days. S. O. 27, Military Division of the South, May 20, 1873.

WEEDS, J. F., SURGEON.—Assigned to duty as Post Surgeon at Fort Randall, Dakota Territory. S. O. 103, Department of Dakota, May 17, 1873.

KNICKERBOCKER, B., ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Cronkhite, to comply with orders received from War Department. S. O. 96, Department of the South, May 17, 1873.

CRONKHITE, H. M., ASSISTANT-SURGEON.—Assigned to duty at Oglethorpe Barracks, Savannah, Georgia. S. O. 96, c. s., Department of the South.

MOFFATT, P., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Union, New Mexico. S. O. 42, c. s., District of New Mexico.

STYER, CHARLES, ASSISTANT-SURGEON.—To report in person to the Commanding General, Department of the South, for assignment to duty. S. O. 101, A. G. O., May 19, 1873.

WEEKLY RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FOR THE WEEK ENDING SATURDAY, MAY 24, 1873.

DISEASES.	Adults.	Minors.	DISEASES.	Adults.	Minors.
Apoplexy	5	...	Heart Clot	1	...
Cancer of Stomach	1	...	Hemorrhage	1	1
" Uterus	1	...	" from Lungs	1	...
Casualties	1	...	Hooping-Cough	...	1
Cerebro-Spinal Meningitis	...	10	Inanition	2	4
Cholera Infantum	...	3	Inflammation of Bladder	2	...
Chorea	...	1	" Brain	1	4
Cirrhosis of Liver	1	...	" Bronchi	3	1
Colic	1	...	" Heart	...	1
Congestion of Brain	3	8	" Larynx	...	1
" Liver	1	...	" Lungs	4	9
" Lungs	1	4	" Peritoneum	3	...
Consumption of Lungs	36	8	" Stomach & Bowels	2	3
Convulsions	...	7	" Uterus	3	...
Cramps	...	1	Intemperance	1	...
Croup	...	1	Jaundice	...	1
Cyanosis	...	1	Malformation	...	1
Debauch	1	...	Mania a potu	1	...
Debility	7	10	Marasmus	...	9
Diphtheria	...	2	Murder	...	1
Disease of Brain	1	...	Obstruction of Bowels	...	1
" Heart	13	2	Old Age	8	...
" Kidneys	1	1	Paralysis	6	...
Dropsy	4	2	Pyæmia	1	...
" of Abdomen	1	...	Rheumatism	...	1
" Brain	1	...	Smallpox	2	...
" Chest	2	...	Softening of Brain	2	...
" Lungs	...	1	Sore Throat	...	1
Dysentery	1	...	Still-Born	...	19
Epilepsy	1	...	Teething	...	2
Erysipelas	1	3	Tetanus	..	2
Fever, Hectic	...	1	Tumors	1	1
" Nervous	1	...	Ulceration of Bowels	1	...
" Scarlet	...	5	Unknown	...	2
" Typhoid	6	1			
Fracture of the Skull	1	...			
Gangrene	1	...			
TOTALS				140	138

METEOROLOGICAL OBSERVATIONS TAKEN AT THE SIGNAL OFFICE, PHILADELPHIA, DURING THE WEEK ENDING SATURDAY, MAY 24, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain. In.
MAY.				
Sunday 18th	30.06	60	Fair.	.....
Monday 19th	30.06	58	Fair.	.....
Tuesday 20th	30.26	61	Cloudy, Threaten'g	.....
Wednesday 21st	30.25	52	Threat'g, Lt. Rain.	.88
Thursday 22d	30.09	61	Light Rain.	.35
Friday 23d	29.95	67	Fair, Clear.	.....
Saturday 24th	29.75	73	Cloudy, Fair.	.....
Means	30.06	61		1.23

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

SATURDAY, JUNE 7, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF HYDROTHORAX IN WHICH PARACENTESIS WAS PERFORMED.

Delivered at the Philadelphia Hospital, May 31, 1873.

BY WILLIAM PEPPER, M.D.

GENTLEMEN,—The patient to whom I ask your attention this morning has already demanded our careful study on account of the interesting and complicated symptoms he has presented. You will remember that the most important of these were profuse vomiting of blood, with ascites and large serous effusion in the right pleural cavity. But in order to bring the features of the case clearly before you I will briefly review its history, so far as I have been able to learn it.

William E., a shoemaker, aged 71 years, was admitted to the Medical Wards of the Philadelphia Hospital on March 25, 1873. He has led a regular and rather sober life, and enjoyed general good health. In 1845 he had a long spell of subacute rheumatism, and since then his heart has been at times troublesome, fluttering and palpitating; but he has had no cough or œdema of the feet. For one or two years past his urine has been heavily charged with urates, and he has been obliged to rise once or twice at night to void it. His digestion has been uniformly good until the past six or eight months, since when he has had a great deal of gastric uneasiness with sense of fulness and oppression after eating, and with eructations, but with little nausea or actual pain, and no vomiting. The action of the bowels has been very variable, either constipated or loose, and at times the ingesta have seemed to pass very soon, and almost unchanged. About the first of the present year, he noticed the abdomen enlarging, and since then he has been weaker, and his breathing has been more oppressed after exertion. On the night of March 20 he went to bed feeling as usual, but waked about midnight with a feeling of oppression at the epigastrium, and immediately vomited a large quantity of blood. The amount is represented as having been several quarts. This is in all probability an exaggeration; but at any rate the loss of blood was large enough to cause a dangerous state of exhaustion with almost complete loss of consciousness, from which he was but slowly recovering at the time of his admission, five days later. The hæmatemesis did not recur, but for several days afterwards there were black, tarry stools, evidently composed largely of altered blood.

On admission he presented an appearance of extreme anæmia, with a bloodless countenance, and blanched mucous membranes. His mind was dull and listless, with alarming exhaustion of strength. There was complete anorexia, with an excessively dry and brown tongue. The heart's action was frequent, feeble, and very irregular, but no valvular murmur was detected. The abdomen was distended, and contained a considerable amount of effusion. There were also positive evidences of an effusion into the right pleural cavity extending up to the level of the second intercostal space. The urine was free from albumen, and the deposit presented no evidence of kidney disease.

He was ordered a diet of milk and beef-tea given in small quantities, at short intervals, and in part administered by enema. He also took fifteen drops of oil of turpentine in emulsion, every three hours. By the 10th of April, the tongue having become cleaner and moist, with some return of appetite and power to digest food, while the effusion in the chest and abdomen were increasing, the turpentine was omitted, and he was ordered

℞ Pulv. scillæ, gr. j;
Pulv. digitalis, gr. ½;
Potassæ nitratis, gr. iij.
Ft. pil.
S.—Every third hour.

Under the action of this, the pulsations of the heart became much more slow and regular, so that the digitalis was omitted after the fourth day of its use. For some days there seemed to be a diminution in the serous effusions, but this was followed by increase both of the ascites and hydrothorax. There were habitually several serous stools in each twenty-four hours, usually at night, and the irritability of the bowels was so great as to render the use of even the mildest purgative inexpedient. Various changes were made in the diuretics employed, but without any good result.

Before detailing the subsequent treatment of the case, let us consider the diagnosis, and try to learn the most probable explanation of the complicated morbid phenomena present. The most prominent of these is unquestionably the vomiting of blood, which proved so nearly fatal about six weeks ago; and it is well to determine its cause first. The conditions of the stomach in which hæmatemesis occurs are not numerous. Occasionally it appears as a substitute for some bloody discharge which has been arrested; but I believe this is limited to women, in whom a process of vicarious menstruation may take place from the gastric mucous membrane. But apart from this, and the acute specific fevers in which vomiting of blood may occur, it usually depends on either cancer of the stomach, or gastric ulcer, or intense congestion of the mucous membrane. We may safely assume that there is no cancer of the stomach in the present case. The patient, it is true, has had dyspeptic symptoms for the past year, but there has been no progressive emaciation, and no cachectic or anæmic appearance until the occurrence of the late hemorrhage; there has been no epigastric pain nor tenderness, no vomiting, and examination reveals no tumor in the region of the pylorus. Again, the hæmatemesis which attends gastric cancer is usually small in amount; the blood oozes gradually from the diseased mucous membrane, mixes with the contents of the stomach, is acted upon by the gastric juice, and is finally vomited in the form of blackish particles mixed with altered food. It is comparatively rare for vomiting of pure unmixed blood to occur in cancer of the stomach, and extremely rare for the amount of blood so vomited to approach that which was lost in the present case.

Again, the idea of ulcer is discountenanced by the age and sex of the patient,—for ulcer of the stomach is much more common in early life and in women,—

and by the same absence of pain and tenderness and vomiting, all of which are its very constant attendants. It is true that sudden and very profuse vomiting of blood sometimes occurs in cases of perforating gastric ulcer; but the entire absence of the usual concomitant symptoms prevents us from accepting this interpretation of the present case. It must further be remembered that, upon the supposition of either cancer or ulcer, no explanation would be afforded of the ascites and hydrothorax, whereas it is in the highest degree probable that these conditions and the gastric hemorrhage are due to a common cause. The remaining condition to which I alluded as a possible cause of this hemorrhage was congestion of the mucous membrane of the stomach,—a state which occurs in a good many diseases, and which I am satisfied does not receive the attention it merits, either in a diagnostic or therapeutic sense. But it is only when this congestion depends upon a mechanical obstructive cause that it becomes sufficiently intense to cause the rupture of minute blood-vessels of the mucous membrane, and actual hemorrhage. It is possible that this may take place in some of the forms of obstructive heart disease, but as a matter of clinical observation it is chiefly in connection with cirrhosis of the liver that gastric hemorrhage from intense congestion occurs.

The explanation of such a connection is clear enough. The process of cirrhosis, attended at first with hyperplasia of the interlobular connective tissue which invests all the minute blood-vessels, and subsequently with contraction and induration of the entire organ, as these swollen tracts of connective tissue undergo change into dense fibroid bands, is associated from first to last with obstruction to the portal circulation, which increases until it becomes so intense that some relief must be afforded to the engorged veins which form the radicles of this great venous system. We see the first effects of this engorgement in the disturbed functions of the various abdominal organs. Digestion is impaired; there is a sense of fulness and oppression at the epigastrium, with eructations of gas or acid fluid, and occasional nausea and even vomiting (though this latter symptom is far from common), all of them evidences of the chronic gastric congestion and catarrh. The action of the intestines is irregular, torpor and constipation alternating with catarrhal diarrhœa, while the appearance of hemorrhoids attests the congestion of the lower bowel. The kidneys are engorged, and the urine, variable in amount, is usually heightened in color and loaded with urates. Later the increasing congestion produces even more serious results. Serous diarrhœa becomes habitual, or more commonly the serous effusion takes place from the surface of the peritoneum, and ascites is developed; and at last, particularly if there is any weakening of the vessels, as often occurs in advanced life, there are ruptures of the over-distended capillaries, with more or less profuse hemorrhage from the bowels or into the stomach, exciting hæmatemesis. So often indeed do these latter symptoms present themselves in the later stages of cirrhosis of the liver, that I enjoin upon you the great importance of suspecting and examining for the presence of that condition in every case of gastric or intestinal hemorrhage. You will see at a glance how completely the development of the case we are now studying together has corresponded with the hasty sketch I have given you of the symptoms of cirrhosis of the liver. You will see how well the diagnosis that our patient is suffering with that disease accords with his age, with the gradual appearance and characters of his gastric and intestinal dyspepsia, with the absence of severe pain, tenderness, tumor, or frequent vomiting, and with the presence of ascites, and ultimately of hæmatemesis. I have, therefore, no hesitation in deciding positively upon that view of his case. There is, however, one very important condition in regard to which you may naturally ask for further explanation. It is the large effusion which, as I before stated, was found in the right pleural cavity, and which can have no direct connection with the condition of the liver, since the pleural veins empty, by the azygos and superior intercostal veins, into the superior vena cava. There is, indeed, no little difficulty in explaining this part of the case, because the effusion is altogether limited to the right side. This might readily be accounted for if it were the result of inflammation of the pleura; but the entire absence of pain or febrile action during its development is opposed to this idea, and leads me to conclude that it is of the nature of a pure passive dropsy. There is no reason whatever for believing that the kidneys are seriously implicated in this case. The heart, although its action is very irregular, is the seat of no obstructive valvular lesion which could account for the development of this hydrothorax. We must, therefore, look for its explanation to the general conditions associated with the cirrhosis of the liver. And, in the first place, it must be remembered that no such extreme vascular obstruction as attends advanced cirrhosis can possibly occur without inducing a tendency to general venous stasis. Add to this that, in the present case, many influences have favored the development of a marked degree of anæmia, which strongly predisposes to serous effusion. And finally it is very generally found that, in cases of cirrhosis of the liver (especially, as it has seemed to me, when this comes on independently of alcoholism, as a form of senile degenerative fibroid change), there are alterations in the serous membranes and capsules of the solid organs throughout the body. It may well be, therefore, that in the present case slow changes have been occurring in the pleura which have favored the production of serous effusion there. It is clear that some, or all together, of these causes have led to the extensive hydrothorax which was found in our patient's right chest. But still it is not so clear why the effusion should have been limited to the *right* side, since all of the causes above mentioned would favor with equal force an effusion into the left side, and it appears scarcely reasonable to conclude that, while they led to the development of an enormous serous effusion on the right side, the left pleural cavity should remain entirely free. The only explanation of this which I can suggest is to be found in the special conditions of the lungs and

heart which I believe to be present; and on this account I have reserved the following results of their more careful examination until this time.

(To be continued.)

ORIGINAL COMMUNICATIONS.

EXCISION OF THE HIP-JOINT SUCCESSFULLY PERFORMED.

BY G. TROUP MAXWELL, M.D.,
New Castle, Delaware.

ON the 14th of November, 1872, I excised the hip-joint of Thomas Buckworth, at his father's home in Cecil County, Maryland.

Mr. Buckworth had labored under coxalgia, or tuberculosis of his right hip-joint, eighteen years. He was, at the time I operated, thirty-five years old, and the disease appeared when he was seventeen years of age. During that time, or from the sixth month after the first symptom of the disease —pain in right knee—showed itself, with a few short intervals, pus issued from orifices, or vents, it made for its escape, in the upper portion of the thigh. Several small pieces of bone had, at different times, made their exit also from the same openings. There had been, in all, six outlets for the bone and pus, but never more than two were in active eruption at the same time, some closing, as the pus would make other places of escape for itself. The limb was shortened about three inches, which caused a decided limping gait, and the discharge and long-continued irritation were gradually but surely undermining the patient's strength and health. Indeed, labor was impossible, and life had become a burden. As, notwithstanding the long continuance of this exhausting disease, there was evidence of considerable physical stamina and recuperative energy remaining, I deemed it proper and safe to excise the joint, and, accordingly, recommended the operation.

After sufficient preliminary and preparatory medical treatment and regimen, the operation was done on the day above mentioned.

I had the valuable assistance of Drs. W. H. Barr and Robert McKee, of Middletown, Delaware, on the occasion; and without much difficulty, the patient being profoundly under the influence of chloroform, the entire head of the femur and a considerable portion of the upper part of the rim of the acetabulum were removed.

As there was nothing remarkable about the mode of procedure, a detailed account of the operation is unnecessary. Believing that the greatest difficulties in most operations are overcome with increased facility when the external incisions are large, I first made a semi-lunar incision, with the convexity downwards, then a straight incision of four inches down the thigh, connected with the first at the point of its greatest convexity.

To wash out the wound I used a solution of carbolic acid,—two drachms to the quart of water,—and during the after-treatment a cloth wet with a stronger solution of the acid was kept constantly over the wound.

The patient came from under the influence of chloroform in a short time after the operation was concluded and the wound dressed, and evinced very little sign of shock. Not only did he enjoy almost entire exemption from depression of the nervous system immediately consequent upon the operation, but, what was equally surprising and gratifying to me, there was almost complete immunity from febrile reaction. His progress towards recovery was rapid and continuous until the twenty-fifth day. The purulent discharge was, of course, abundant during the first week; but it then steadily diminished, the wound healing rapidly at the same time. His spirits, appetite, and digestion were also in excellent condition. At the end of the fourth week, however, the whole appearance of the case changed suddenly. The discharge ceased wholly, the wound assumed a glazed, unhealthy look, and the parts about the joints were hot, red, and much swollen. In addition there was complete anorexia, —food being loathsome to the patient; and, withal, for the first time he lost spirits, and became despondent. Discovering the true nature of the complication and cause of the radical change in my patient to be malarial poisoning, he was quickly relieved by the administration of a few doses of quinine, and at the end of the fifth week his case had resumed its previous cheerful aspect. By the end of the seventh week the wound was healed perfectly, and the patient was walking about his room by the aid of a single crutch at the close of the ninth week.

The success of the operation is, therefore, absolute, as now—at the end of six months—he has a comparatively useful limb, shortened slightly, but with a little motion in the joint, and fitting him for employment in many vocations.

I have been succinct in the account of this case, as there was not anything peculiar about it, and the only purpose I have to subserve in its publication is to offer the encouragement which a successful operation may afford to the profession.

MAY 27, 1873.

BATRACHIAN METAMORPHOSIS WITHIN THE OVUM (*British Med. Journal*, May 3).—M. Jules Garnier, the explorer of New Caledonia, makes known through the *Revue Scientifique* an observation of M. Davay, *pharmacien* in Guadaloupe. It is to the effect that in the country there is a frog—the *Hylodes martinicensis*—which does not undergo the ordinary tadpole transformation, but is fully formed *in ovo*. On examining an ovum taken from the gelatinous mass in which they lie embedded under moist leaves, there is found a slender embryo with a large head, four styliform limbs, and a tail folded in. On touching the egg, the embryo changes its place. A day later, the embryo has a tail as long as its body, translucent and flat, like a tadpole's tail. The limbs then become developed, and some days later the little frogs escape, being of a deep brown-gray color, and not presenting the least vestige of a tail.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, JUNE 7, 1873.

EDITORIAL.

THE SOCIAL EVIL.

AFTER all the discussion which has taken place in England with regard to the advantages and disadvantages of the Contagious Diseases Acts, it seems as if the question was practically settled by the results set forth in the official returns for the year 1872. We quote from the *Lancet* for May 10 the following statements, which, in our opinion, are worth volumes of theoretical opposition :

"It (the report) states that the women in the several places subject to the Acts attended with regularity throughout the year, and that in a few instances only was it necessary to take proceedings before a magistrate. The Acts have exercised a repressive influence in several ways. Notwithstanding, we are told, the continued influx of common women from unprotected districts, the total number in the several districts on the 31st of December last had been reduced. The beneficial working of the Acts is, however, more clearly demonstrated by the reduction in the number of juvenile prostitutes; and this is very striking. The number of prostitutes in the different districts under the age of seventeen on the 31st of December last was nine; whereas in 1866, when the Acts were first put in force, there were three hundred and seventy-seven under that age. Again, on the 31st of December last, those under the age of eighteen were sixty-seven; whereas in 1866 there were five hundred and ninety-five! The number of brothels has been reduced by eighty-six during the past year, many of those suppressed being of the lowest description: seventy-one young creatures between the ages of twelve and seventeen, and one hundred and thirty-five women between the ages of seventeen and thirty-one, who were known to have commenced immoral practices, gave up that course of life upon being spoken to by the police; and the Assistant-Commissioner's Report contains individual instances of many girls and married women who owe their rescue from a life of sin and misery to the well-directed and humane efforts of the officials engaged under these Acts."

In dealing with matters of this kind, the great point is to attack them where they are most vulnerable. We may not be able to get hold of the thread at the very end and trace it all the way through, untangling every knot, but if we can make a decided beginning,—as seems by the above showing to have been done in this instance,—the result may be even beyond our expectations. The main difficulty is, that the male sinners, to gratify whose passions the "social evil" exists, are not affected either by legal enactments or by social proscription. All they have to steer clear of is disease. But we do believe that it is far better to lessen the rampant luxuriance of vice, even if the measures must be partial, than to leave it unchecked. The way may open to still further reformatory proceedings. So far as we know, St. Louis is the only American city in which any attempt has been made to establish and enforce any systematic supervision of prostitutes by the police. We should like to learn what results have attended that experiment.

SANITARY MATTERS.

WE feel constrained to utter a note of warning, on the approach of another summer season, as to the inefficient protection afforded to the population of this city against the dangers which the hot weather brings with it.

Philadelphia was once known as the cleanliest of American cities. She showed to visitors, with much pride, her arrangements for an abundant supply of pure water. At the present time her streets are ill paved, dirty, and foul-smelling, and on the very threshold of the summer there is not a sufficiency of water, in the centre of the city, even for ordinary purposes.

With the mere matter of paving we are not now concerned; although badly-laid streets, where surface-draining is employed to so great an extent as here, are apt to become depots of stagnant water charged with unwholesome substances. We do most earnestly protest, however, against the whole system, or want of system, upon which some of the tax-payers' money is supposed to be laid out in a

pretence of keeping the streets clean. The shallowness of the pretence may be gauged in wet weather by the depth of the mud, in dry weather by the quantity of dust which every breeze brings to our nostrils. A law exists, but is in many neighborhoods a dead letter, against the throwing of kitchen offal into the streets. Everywhere the carcases of animals are seen scattered about, awaiting the chemical decomposition which is not only more certain, but more speedy, than the operations of the paid scavenger.

Bad as all this is, it is not so bad as the lack of water. With two great rivers flowing past, our citizens ought to have an absolutely unlimited use of this indispensable means of health and purity. And yet, year by year, every summer, the authorities are obliged to caution the public that there is danger of a water-famine. Let us imagine for a moment this state of things existing, and either a pestilence or a great fire breaking out. Is it necessary for us to hesitate in answering the question whether it would be better to spend a million or more in enlarging our mains, in providing more powerful pumping apparatus, or in arranging for some other source of water-supply,—or to let it go in the shape of lives destroyed by disease, or property reduced to ashes?

These are matters which will sooner or later force themselves upon the notice of the people. Better, far better, would it be to act promptly, to use the ounce of prevention, to "foresee the evil," as the wise man says, than to "pass on and be punished." A community, like an individual, may disregard the laws of hygiene, and live either in ignorance, recklessness, or defiance of them; but the time will come when the folly of such a course will be made unmistakably manifest.

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times.

DEAR SIR: Will you allow a stranger much interested in insurance matters to say a few words in regard to the interesting article on that subject in your number of May 17? While agreeing entirely with all that is said concerning the necessity for a thorough preliminary medical examination, and for an efficient and *entirely independent* body of medical examiners, I cannot admit that the only questions which should be raised, when a death-claim is presented, are those of identity and death, and that no misstatements in the application and no subsequent violation of the terms of the policy should be held to bar the claim.

There certainly appears no good reason why a life-insurance contract should not be treated as all other contracts are treated, and be liable to be set aside for fraud in obtaining it, or for the non-fulfilment of its conditions. If a man induces me to insure his dwelling-house, stating that the building is used as a dwelling-house only, and it appears afterwards that at that time he had petroleum stored in his cellar, surely no one holds that the *fire* policy is valid. Or if he puts the petroleum in the building after obtaining the policy, and contrary to its express stipulations, every one admits that the insurance is forfeited. Why should not the same rule apply where a *life* policy has been obtained by the concealment of some important fact or where some essential condition of good health and long life has been afterwards deliberately violated? Surely every company has a right to decide the conditions upon which it will make new contracts, and those who accept these contracts should not complain if the conditions are enforced. But the author of the article in question appears to go further, and implies that policies should not be so worded as to admit of this defence; that no such conditions should be imposed. This would oblige the companies to say to all comers, in effect, that if a rogue can only be cunning enough to escape the detection of his fraud on the preliminary examination, he need fear no future dispute of his claim, no matter what further information may subsequently be gained, or may be developed by the circumstances of the death. Is any other business conducted on such principles? Could it be safely? Does any merchant so regulate his private contracts? If so, why do we maintain courts of equity? If not, why should life-insurance companies alone among business associations be debarred from the relief those courts afford?

It must be remembered, too, that no preliminary examination, however careful, can elicit all the important facts of the applicant's condition. This business, like all others, has to be conducted largely upon faith in the statements submitted to us; and, as is done in every other business, the party making such statements should be held bound by them, and not the less because the real facts of the case are often, from their very nature, only to be discovered when death occurs.

It will be noticed that I do not here discuss the case when misstatements have been honestly made and with no intent to deceive any one. Neither do I wish to be understood as advocating or justifying the contesting of a claim on merely technical grounds. This, which is wrong in any business, is peculiarly so in life-insurance. But such cases are much less frequent than the public generally suppose. No one not familiar with the subject has any idea of the number of absolutely fraudulent claims presented to our insurance companies, or of the very large number of losses paid every year upon lives which never should have been insured, and which it is a moral certainty, though perhaps not to be proved legally, never would have been insured had the parties told the truth in their applications. So far from the companies being unduly anxious to contest such claims, it is certain that the managers of many of the mutual companies have incurred a very grave re-

sponsibility by the readiness, to use no harsher word, with which they have settled, without dispute, all sorts of losses, thus spending the money of their honest and truthful members in *charity* (for when no real right to the money existed, its payment could be nothing else) to the fraudulent or unworthy. For it must always be remembered, in regard to all these matters, that a mutual company is only an association of insured lives, and the fraudulent loss of the company is the loss of each individual member.

M.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

SEMI-MONTHLY MEETING, May 14, 1873.

Reported by JAMES S. BAILEY, M.D.

DR. HENRY MARCH in the chair.

(Continued from page 556.)

ETIOLOGY OF BRIGHT'S DISEASE.

DR. F. C. CURTIS addressed the Society upon this interesting subject, and said:

It has been a subject of remark at post-mortem examinations that we very seldom see a perfectly healthy kidney. Although the same might be said of other organs, still it is true that Bright's disease is comparatively common.

The following case is peculiar only in regard to its etiology. Mr. L., the patient, was about 45 years old, a native of Canada, and by occupation a cooper; he had not, however, pursued his trade actively for some years, but had led an easy life. He has always been healthy, and his family history is good. He was of light complexion and of sanguineo-nervous temperament. There is no evidence that he has ever been of scrofulous habit; neither has he been intemperate in the use of stimulants. He asserted that he had always been perfectly healthy, excepting that he had had occasional attacks of sick headache, which were, as described, in no way peculiar. Aside from these he had no nausea or headache, his eyesight was normal, and he had no œdema. Prior to January last, the closest cross-questioning failed to detect any symptoms of disease of the kidneys, he being questioned with particular care, because he was under an accident insurance policy.

Early in January, while walking in the street, he slipped on the ice and fell, striking on his back and the back of his head, hurting no particular part, but causing a general jarring of the body. He states that he was unconscious for a little time, after which he had severe pain in the head, which persisted. He also vomited several times in the course of the morning. The fall did not, however, disable him so but that he was able to proceed directly to his business then in hand, which was of a pressing nature. He rode down town in an omnibus, walked to the lawyer's office, a short distance, and, after lying down for an hour or so, attended to the business, and then rode home as he came. His headache continued, and he vomited a few times, but was able to attend a trustees' meeting of his church in the evening from 7½ till 9 o'clock, though feeling badly. The headache persisted for three or four days, and his face was bloated.

On the third or fourth day his urine was noticed to be high-colored, and examination of it shortly after showed it to be highly albuminous. Occasional vomiting continued for a week or two, coming on especially when the head ached. About two weeks after the fall the lower limbs began to be œdematous. I saw him for the first time about the 1st of March; he then had no œdema of the face, nor did his face present the peculiar pallor of Bright's disease. He had some dyspnœa, but no cause for this could be ascertained, as his heart and lungs were healthy, and there was no peritoneal or pleuritic effusion. His general condition was fair, and he was able to be about the house. There was no disturbance of vision or other nervous symptom. His legs were œdematous. What his treatment was it is impossible to say, as he was under a homœopathic practitioner. I examined his urine at this time, six or seven weeks after his fall, with the following result: Color cherry-red; transparent, no precipitate; specific gravity 1022; albumen, I should say about five-sixths, as the test-tube was solid with it. Microscopically there was found renal epithelium, blood-globules abundant, blood, epithelial and granular casts. It seemed pretty clear from the examination that the disease was acute and of short duration, rather than that it had been running a latent course, now for the first time developing. The prognosis given at this time was that there was a possibility of recovery. The proportion of recoveries given by Frerichs from acute Bright's disease is two-thirds of those attacked, and Roberts thinks this below the average if cases resulting from scarlatina are included.

But the second examination of the urine, made three weeks later, seemed to settle the question of prognosis. The result of this was as follows: Urine a reddish color, opaque; reaction acid; specific gravity 1025; albumen three-fourths. Microscopically, blood-globules, renal epithelium—some of which was fatty—casts, which were abundant, were bloody, epithelial, hyaline, and fatty.

Evidently from this, the kidneys were passing beyond simple congestion and catarrh of the renal tubes. Here, within ten weeks of the onset, we see that there was fatty degeneration of the kidneys, with waxy casts, indicating chronic disease. According to the view of Frerichs, Niemeyer, and the German pathologists generally, that the different anatomical changes of the kidney are only stages of one disease, the kidneys in this case had passed from the first into the second stage. Whether or not this unity of the forms of Bright's disease be a correct pathology, this case seems to illustrate its truth to a certain extent. That the contracted granular kidney is a third stage, ultimate to the large white kidney, is more difficult to prove. In fact, I believe it is the general experience that patients having the large white kidney are more apt to die. I have in mind two cases occurring side by side, in the New York Hospital, when I was a student; one believed to have the "large white kidney," his symptoms being great œdema of the limbs, which was not relieved, although the urine was passed freely under diuretics: the pallor was very marked, symptoms of nervous disturbance presented, and he finally died with convulsions and coma. Here all the prominent symptoms of the affection were very marked. The other was considered a case of "small contracted kidney." He had no pallor, and no symptoms of nervous disturbance from first to last; nor was there any œdema, the only effusion being into the peritoneum and subsequently into the pleural cavities. Under the use of tinct. ferri chlor. and an occasional purge, he finally began to improve, the kidneys and skin acted freely, so that the serous effusion disappeared entirely, albumen and casts cleared up from the urine, and to all appearance the man was cured, and was so discharged from the hospital. In these two cases, presenting symptoms ascribed to the two pathological conditions, we see the one dying in the second stage (so called), while the other, so far as could be seen, recovered. The second

case related, moreover, never passed through the symptoms of the second stage as seen in the first case. The theory of this unity of Bright's disease has been, perhaps, gaining ground with us because of the many translations of valuable German works, recently made, but I think the division into acute, smooth white, small granular, etc., separate diseases, held by Roberts, Dickinson, Wilks of Guy's Hospital, and others, has been the most commonly received here and in England. The possibility of a passage from a first to a second stage, illustrated by the case in hand, is not, that I know of, doubted.

After the second examination of the urine an unfavorable prognosis was given. The patient, however, at this time presented, clinically, an improved appearance. Later the œdema increased, the limbs, scrotum, and penis swelled; he failed steadily, and died without the occurrence of any symptoms of nervous disturbance, eighty-six days after the fall to which his death is attributed.

A post-mortem examination was made next day. The parts were found œdematous, as above mentioned. There was no effusion into the serous cavities. The lungs were healthy. The heart was somewhat enlarged, but the valves were normal and competent. Abdominal organs healthy, except the kidneys; these were much enlarged, white, smooth, and fatty. The capsule stripped up readily, leaving a smooth surface under it. The pyramids were partly destroyed. There were ecchymotic spots of small size in the left kidney. Microscopical examination showed abundance of fat in the tubes and fatty degeneration of the epithelium.

The termination of this disease fatally within three months of its alleged cause makes the etiology here especially important. Clearly, the man died of Bright's disease simply. Had this been running a latent course and developed at the time of, perhaps by, the injury? Hardly; for some symptoms of failing health must have been apparent, even though a diagnosis had been impossible. The urinalysis, too, shows pretty conclusively that the inflammation of the kidneys was a recent one. Both subjective and objective symptoms point to about the 1st of January as the probable time when the disease commenced.

The usual causes of Bright's disease are, exposure to cold, the use of alcoholics, and the influence of zymotic poisons, more especially scarlatina.

Minor causes are hereditary tendency or constitution of body, such as scrofula and tubercle, excessive use of such drugs as copaiba, turpentine, etc., pregnancy, and other conditions. All authorities are unanimous in giving these. Aitken alone alludes to certain causes which, to quote his words, "may be regarded as mechanical causes of irritation, but which so secondarily affect the constitution of a person predisposed to the disease, that Bright's disease, rather than any other, is the result,—*e.g.*, the irritation of blows, of cantharides or other irritants, the presence of calculi in the kidney, etc." In other words, in a person predisposed to this disease by climate, habit of life, or other condition, irritants, including traumatic injuries, may develop it. We cannot find in this case any predisposing cause: the accident occurred in steady winter weather, his occupation did not expose him to cold or moisture, his health was at its usual standard, and he had always been free from disease; his habits of life were in all respects temperate; the post-mortem showed his other organs to be healthy. In short, none of the ordinarily accepted causes, predisposing or exciting, can be found.

The question of causation seems then either to be limited to the fall, acting simply and alone to produce the disease, or else the case is one of those in which the most searching analysis fails to detect the cause. The possibility of the fall acting as a cause for Bright's disease, unless effecting traumatic injury to the kidney, may well be doubted. Could reflex action or injury to nerve-centres produce disease of the kidney? It does not appear improbable, but I do not know any direct authority for it. It is not easy to express opinion in matters so vague as such suppositions lead us to. I should be glad to hear the views and experiences of others in the matter.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, APRIL 24, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. H. LENOX HODGE exhibited a *multilocular ovarian cyst* removed by ovariotomy on Saturday, April 12.

The tumor weighed fifty-five pounds, and consisted of many cysts, great and small. The fluid varied much in consistency, part of it being nearly as firm as jelly, and part of it quite limpid. The color also varied much, being, however, mostly dark. The tumor came from the left ovary, and had a pedicle about four inches in length. It was first noticed sixteen months ago. The patient is forty years of age, and had been tapped four times. The tumor was removed by ovariotomy twelve days ago, and thus far the patient has done very well.

Specimens of the fluid were submitted to Drs. BERTOLET and RICHARDSON for examination.

Dr. R. M. BERTOLET said he had examined the fluid from this tumor and had found the specific gravity 1014. Microscopically it contained free nuclei, granular matter, cholesterine crystals, and epithelial cells derived from the lining of the cyst-walls. Most of these cells had undergone fatty degeneration and disintegration. The so-called compound granule-cells were numerous, but presented nothing peculiar. He had seen similar cells in other fluids derived from the abdominal cavity. On the addition of acetic acid some of these exhibited a reaction similar to that of leucocytes, but the majority were much larger than pus-corpuscles. On the addition of ether the granules and globules disappeared. He thought it was quite impossible to base a diagnosis of ovarian tumor upon their presence.

Dr. JOSEPH G. RICHARDSON had also examined the fluid, but said he had very little to remark in addition to what had been stated by Dr. BERTOLET. He had, however, measured a number of these corpuscles, and found them to average $\frac{1}{100}$ of an inch in diameter, and to be generally stuffed with oil-globules of considerable size. He thought that their diagnostic value might lie in the fact that the flat endothelial cells would not be likely to become distended so as to assume a spherical shape. The globules of oil contained in them were sometimes very large, occasionally $\frac{1}{400}$ of an inch in diameter. In some of the cells in which the fatty degeneration was less advanced, he had been able to distinguish a cell-wall.

Dr. BERTOLET said that, as a rule, the corpuscles were without a cell-wall, and appeared to be merely an agglomeration of fat-granules.

Dr. RICHARDSON further remarked that in two or three cells he had been able to make out a nucleus. It was single, and of large size. He desired to know of Dr. BERTOLET whether he knew what was the thickness of these endothelial cells which line the cavities in fibro-cystic growths of the uterus, for example.

Dr. BERTOLET, in reply, said he had never taken the trouble to measure their thickness. Other forms of cells, columnar, even ciliated epithelium, had been found in ovarian fluid by Peaslee and others.

Dr. RICHARDSON said the point which he wished to

make was that these very flat endothelial cells of uterine cysts would not be likely to swell up so as to assume a spherical form by their fatty degeneration.

Dr. JAMES TYSON said that the compound granule-cells were not necessarily derived from the flat endothelial cells, but perhaps descended from the deeper layers of cells of spherical shape which physiologically impressed would become the flat endothelium, but pathologically impressed became compound granule-cells.

Dr. W. G. PORTER exhibited, for Dr. H. LENOX HODGE, *sections of femur and tibia, and the patella*, removed in the operation of *excision of the knee*, done this morning at the Presbyterian Hospital. The patient is a young man, twenty-six years of age. When a child of three years, he began to suffer with inflammation of the left knee, which has continued with more or less violence ever since. The limb had become much wasted and useless. He could not bear any weight upon it without suffering much pain. There was slight motion at the joint. The patella was firmly adherent to the femur by bony anchylosis. The femur and tibia were bound together by strong fibrous bands. In the left side of the head of tibia an abscess was found extending more than an inch in depth from the joint. As the section shows, only the articulating surface was removed. The position of the abscess was treated by the gouge.

Dr. J. SOLIS COHEN exhibited a *fragment of bone removed post-mortem from the larynx* of an adult male.

Dr. BERTOLET said this was a truly remarkable specimen, and he could easily see how it could be mistaken for a necrosed cricoid cartilage. Had the curve been turned the other way it could easily have been seen laryngoscopically, and extracted; but in its present situation extraction would have been impossible without laryngotomy.

He said it was a disputed question as to whether necrosed cartilages partially ossified should be removed. In this case an operation under the supposition that the foreign body was a necrosed cartilage would have been a fortunate one. Indeed, Dr. BERTOLET considers the operation at all times a proper one, since there is always more or less danger of the detached fragment falling into the trachea or becoming impacted in the glottic fissure.

The specimen was referred to Drs. HARRISON ALLEN and W. W. KEEN for examination. These gentlemen reported as follows:

"The committee to whom was referred the specimen of the larynx exhibited by Dr. J. Solis Cohen at the last meeting of the Society, have the honor to report that they found the specimen opened along its posterior wall,—the cricoid cartilage being divided at the median line. The cartilages were more or less ossified. The cut through the cricoid showed within this cartilage extensive bony change. The mucous membrane was everywhere intact, save at two points a little below the vocal cords, where ulcerative abrasions were seen, each about the size of a grain of barley.

"Accompanying the laryngeal specimen was a fragment of bone. The committee was informed that it had been found lying across the cavity of the larynx, and had maintained its position at the sites of the lesions already mentioned. The fragment resembled a portion of a bony ring. Its concave surface was smooth; its convex was somewhat roughened and marked by a central pit. One of the sides was rounded and even, another was uneven, and apparently eroded. The first-mentioned border was obliquely facetted. The facets were oblong, and had been at one time probably covered with cartilage. The fragment measured seven lines through its greatest length, and three lines through its greatest width. It resembled in its general outline a portion of the ossified cricoid cartilage. This structure, however, was in position and apparently unchanged by any loss of tissue.

"The committee were unable to identify the specimen with any portion of the skeleton of an animal which may have been partaken of by the patient with his food."

THURSDAY EVENING, MAY 8, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

CHRONIC ARTHRITIS OF THE KNEE.

Dr. H. LENOX HODGE exhibited *sections of the femur and tibia and the patella*, removed by the operation of excision of the knee, done nine days ago, at the Presbyterian Hospital. Thus far the patient has done well. He is eight years of age, and has suffered from inflammation of the knee for about three years. The knee was partially flexed, and retained limited movement. The child could not make use of it in walking, and suffered pain on pressure. On inner side of lower part of femur there was a scar of an old abscess. The internal condyle of the femur has a deep ulceration upon it, causing a large indentation. The rest of the articulating surfaces seem free from disease.

Dr. H. ALLEN suggested that in view of the position of the patch of ulceration—viz., at the side and near the front of the condyle—the disease had been located in the epiphysis, and not primarily in the joint.

Dr. JOHN H. PACKARD said that he thought, and that only a day or two ago his attention was called to the distinctly expressed opinion of a leading English surgeon, that when the patella was allowed to remain it often became the cause of further disease. He himself thought also that a limb in a very slightly flexed position was more available for walking than a straight one; that a patient with his leg in a straight line was in the condition of a man with the old-fashioned wooden leg.

Dr. ASHHURST asked whether the synovial membrane appeared diseased.

Dr. HODGE replied that over the internal condyle there was evidence of ulceration, extending even to the bone.

Dr. PACKARD remarked that, except where the peculiar construction of the joint, as in the shoulder and hip, would not permit it, he believed it to be the accepted rule to make a complete exsection rather than a partial one, so as to have two fresh bony surfaces opposed. In the ankle he thought the rule was also less important. With regard to the latter joint, he would like to know whether any one had had the opportunity to dissect this part after the operation of excision. He had in one instance excised the astragalus in a child, and in course of time its place seemed to become filled by a new formation.

Dr. ALLEN asked how the child walked after the astragalus was removed.

Dr. PACKARD replied that the child walks perfecly well. There is free motion and no tenderness whatever.

The PRESIDENT confirmed what Dr. Packard said with regard to loss of the astragalus, by the instance of a boy who came under his notice at the Pennsylvania Hospital, having lost this bone, and in whom there was subsequently no impairment of motion.

Dr. ALLEN remarked that the relations of the astragalus to the arch of the foot showed that the weight of the body is transmitted mainly along its axis. This understood, it becomes interesting to study the mechanism of progression after the removal of the astragalus. He thought it probable that the weight would in that event be thrown more upon the calcaneum, and the arch of the foot, if not destroyed, at least greatly impaired.

Dr. HODGE said that when the bone is discharged by disease, and the periosteum remains intact, regeneration may be expected to take place, and mentioned a case in which he removed two-thirds of the tibia in its whole thickness, and stated that the bone has been reformed and the limb is perfectly useful.

Dr. PACKARD referred to an old case of excision of the astragalus, by Dr. Levis, in which there is a depression, but the boy walks well.

Dr. DE F. WILLARD said he thought the malleoli might be thrown into a new position, rotating on their longitudinal axis so that the internal would move forward and the external backward, as seen in cases of club-foot of long standing in adults.

Dr. J. EWING MEARS presented a specimen of *follicular colitis*, taken from a child aged eight months. The patient manifested the symptoms which usually accompany this affection, convulsions finally supervening, which terminated in death.

Post-mortem examination revealed marked passive congestion of the brain, with serous effusion into the lateral and third ventricles. The stomach, liver, spleen, and small intestines were healthy. The only lesion found was that shown in the large intestine, which implicated principally the ascending and transverse portions.

REVIEWS AND BOOK NOTICES.

HANDBOOK FOR THE PHYSIOLOGICAL LABORATORY. By E. KLEIN, M.D., Asst. Prof. in the Pathological Laboratory of the Brown Institution, etc.; J. BURDON-SANDERSON, M.D., F.R.S., Prof. of Practical Physiology in University College, London, etc.; MICHAEL FOSTER, M.D., F.R.S., Fellow of, and Prælector of Physiology in, Trinity College, Cambridge; and T. LAUDER BRUNTON, M.D., D.Sc., Lecturer on Materia Medica in the Medical College of St. Bartholomew's Hospital, London. Edited by J. BURDON-SANDERSON, M.D. In two volumes 8vo. With one hundred and thirty-three Plates, containing three hundred and fifty-three Illustrations. Vol. i., Text. Vol. ii., Plates. Philadelphia, Lindsay & Blakiston, 1873.

No more useful aids to medical instruction have been supplied us in modern times than these volumes furnish. They are the first fruits of the new education, the object of which is to teach men to observe, think, and deduce, as well as to remember. We are told that the book is intended for beginners in physiological work, but we believe there are no teachers of physiology and histology in this country who would not teach with new enthusiasm by making it their guide. We believe, moreover, that there is no other book, in any language, so useful to teacher or student in the departments which it covers. For, in addition to the fact that there is no single work in the German which covers so extended a field, there is, even in those extant, a want of preciseness in the directions given which makes them unsatisfactory to beginners.

Part first, by Dr. Klein, is taken up with practical histology. The skill of Dr. Klein as a teacher of practical histology is well known to many Americans who have profited by it in Vienna and London, and these will hail with pleasure the extension of his usefulness which grows out of the issue of this book.

The subjects treated in part first are—the blood; epithelium and endothelium; connective tissues, including cornea, bone, and cartilage; muscular tissue; tissues of the nervous system, including the terminations of nerves; methods of preparation of the compound tissues, imbedding, section-cutting, etc.; the vascular system, including injections, structures of the blood-vessels, and microscopical study of the circulation; the lymphatic system; organs of respiration; organs of digestion, including the liver and spleen; the skin, cutaneous glands, and genito-urinary apparatus; organs of special sense; embryology, to which Dr. Klein has given much study, and on which he is an admitted authority; and, finally, the study of inflamed tissues, including inflammation of epithelium, endothelium, of cartilage, of bone, inflammatory changes in the liver-cells, in the cornea, in the tongue of the frog, and in the tadpole's tail.

Thus is covered the whole domain of practical histology, and throughout it the most accurate directions are given, so that if these are followed, with the assistance of the admirable plates, of which the only criticism that can be made is that they are not in the same volume with the text, one cannot go astray. To one who has had the advantages of Klein's personal instruction, reading the book seems like rehearsing with the master, so practical, so much to the point,—in fact, so like Klein does the text read.

The second part of the book, on Practical Physiology, is by Dr. Burdon-Sanderson. Those who have read his lectures on this subject in the *Medical Times and Gazette*, a year ago, will recognize much that was then published, and will be glad to have it in its present convenient form.

The subjects treated are—

1. THE BLOOD—*a*. the liquor sanguinis, or plasma; *b*. conditions affecting coagulation; *c*. the coloring-matter, its chemical properties, and the action of various agents upon it; *d*. gases of the blood, and methods of analysis.

2. THE CIRCULATION OF THE BLOOD, in which are described the kymograph, accessory apparatus and their uses; also the sphygmograph and experiments with the schema relating to the form of the arterial pulse. The functions of the vaso-motor nerves, with experiments illustrating them, occupy considerable space, and make this subject clearer than has heretofore been done. A complete study of the movements of the heart, with the influence of nerves and ganglia, and directions for the use of appropriate apparatus to illustrate the former, are contained in this chapter.

3. RESPIRATION is similarly treated in the next chapter; 4, ANIMAL HEAT, including thermometry, in the next.

The third part of the volume, also on physiology, is by Dr. Michael Foster, on the functions of muscle and nerve. An accurate description of special apparatus, more particularly electrical, is followed by a chapter on the general properties of muscle at rest; another on preliminary observations on the stimulation of nerve and muscle; a third on phenomena and laws of muscular contraction; a fourth on the wave of muscular contraction; a fifth on tetanus; a sixth on electric currents of muscles; a seventh on stimulation of nerves; an eighth on phenomena accompanying a nervous impulse; a ninth on various forms of stimulation of muscle and nerve; a tenth on urari poisoning and independent muscular irritability; an eleventh on the functions of the roots of spinal nerve, including recurrent sensibility; a twelfth on reflex action, and a thirteenth on some functions of certain parts of the encephalon.

Precise directions for experimentally showing all these points are laid down.

Practical physiology is continued in the remaining part, by Dr. Lauder Brunton, on digestion and secretion, with introductory chapters on the albuminous compounds and the chemistry of the tissues. In this are included albumen, its properties, and alterations

produced in it by acids and alkalies, a synopsis of albuminous compounds, including leucine and tyrosin, with their tests. The chemistry of the tissues includes that of nerve, muscle, connective tissues, etc. The chapter on digestion is a store-house of experiments, which will be of great use to the lecturer on physiology. Scarcely enough stress, in view of existing impressions with regard to it, is laid upon the utter inapplicability of all the ordinary modifications of Pettenkofer's test for the determination of bile-acids in the urine. That of Strassburg, which is given, and which consists in adding a little cane sugar to urine containing bile-acids, dipping a piece of filtering-paper into it, letting it dry completely, and then adding a drop of pure sulphuric acid, we have found no more satisfactory than the rest. If the bile-acids are present, according to Strassburg in a quarter of a minute a beautiful violet color appears, which is best seen by holding the paper up to the light and looking through it. Dr. Brunton states, however, that in all doubtful cases, and wherever accurate results are required, the bile-acids should be separated before applying the test. We believe no other method than this, as directed by Hoppe-Seyler, is available for accurate investigations, and this is so long and tedious as to be quite beyond the use of the practitioner.

Among the secretions are considered milk and urine. This part of the work is less complete than the others, and is more of the nature of a compilation from the physiological chemistries of Gorup-Besanez, Kühne, Hoppe-Seyler, and others. It is nevertheless very useful, and adds greatly to the completeness and utility of the entire treatise.

To the book is added an admirable appendix of "Practical Notes on Manipulation," including manipulation of glass tubing, solution and ebullition, evaporation, filtration, etc.

MINERAL SPRINGS OF NORTH AMERICA: HOW TO REACH AND HOW TO USE THEM. By J. J. MOORMAN, M.D., Physician to the White Sulphur Springs, etc., etc. Crown 8vo, pp. 295. Philadelphia, J. B. Lippincott & Co., 1873.

The first edition of this work was issued, in pamphlet form, in 1839, as a directory for those seeking the benefits of the White Sulphur Springs in Virginia. Since that time, in successive editions, it has undergone a great increase in scope, until this, the seventh, embraces all the well-known springs of the Northern Continent of America.

Dr. Moorman has given, as might have been expected, a much larger space to the springs of Virginia than to those of any other State. This is partly owing to the fact of the much greater development of their natural advantages in that part of the country than elsewhere, but mainly, doubtless, to his own familiarity with them. His directions are sound, clear, and practical, and will be of use to many physicians in influencing their advice to patients. The analyses given of the various mineral waters are derived from the best authorities.

The mechanical execution of this book leaves nothing to be desired, while its size will make it very convenient for reference.

THE MINERAL SPRINGS OF THE UNITED STATES AND CANADA; with Analyses and Notes of the Prominent Spas of Europe, and a List of Seaside Resorts. By GEORGE E. WALTON, M.D., Lecturer on Materia Medica in the Miami Medical College, Cincinnati, etc., etc. Small 8vo, pp. 390. New York, D. Appleton & Co., 1873.

This is a very good book, especially in its arrangement; the various springs being classified, not according to regions, but according to their physical peculiarities and medicinal effects. A slight tendency to the absurdity called "popular medicine" only excepted, the scientific portion of the work is well done. Clear directions as to the railroad routes, illustrated by maps, add greatly to its value both to patient and of physician.

GLEANINGS FROM OUR EXCHANGES.

KRAUSPE ON EXTENSIVE DILATATION OF THE ARTERIAL SYSTEM.—Dr. Krauspe records (*Berliner Klinische Wochenschrift*, March 17, 1873) a case from the polyclinic of Dr. Nothnagel of Freiburg, in which a condition of aneurismal dilatation of the vessels was found extensively distributed over the arterial system. A man, aged sixty-four, short and thin, and suffering from an acute exacerbation of chronic bronchitis, which had probably existed for many years, was found to present the following condition after the acute attack had passed off. There were symptoms and physical signs of chronic bronchitis and emphysema. Enlargement of the right ventricle was not demonstrable locally; the left ventricle was hypertrophied and dilated. The cervical veins were excessively dilated, with regurgitation, but no pulsation. The kidneys were congested. There was no subcutaneous œdema. In various parts of the arterial system there was evidently present aneurismal dilatation of the vessels, both as smaller circumscribed aneurisms, and as extreme dilatation of considerable portions of the arteries. The vessels of the neck presented this condition to a very striking degree and extent. The right common carotid artery, apparently normal below, speedily became extremely dilated, reaching the diameter of 2.5 centimetres; and there was corresponding dilatation of the right external and internal carotids. The left common carotid artery and its two branches were equally dilated with the vessels of the right side, but the main trunk was at the same time considerably elongated. The thyroid and lingual arteries of both sides were visible, dilated, and tortuous. The temporals were narrower than usual. All the dilated arteries in the neck were pulsating strongly. The radial arteries were somewhat tortuous; the walls were not rigid, their circumference was moderate, the tension rather small, and the pulse-wave low. The right brachial artery was somewhat tortuous, and in its diameter and strength of pulsation almost equalled the axillary. The left brachial was decidedly smaller than the right, and markedly different from the corresponding axillary, which was dilated nearly to an aneurism. The abdominal aorta could be very easily felt, and was much elongated and tortuous; it was not perceptibly dilated. In the right femoral artery was found a distinct but not great dilatation, with weak systolic murmur, and the walls of the vessel in its whole course were somewhat rigid. On the left side a similar aneurismal dilatation was doubtfully present. In the popliteals and tibials, nothing abnormal was discovered. In short, there was dilatation and elongation of the carotid arteries and some of their branches, and of the brachials (not marked); small sacculated aneurisms of the femoral and left axillary arteries; and elongation only, so far as could be discovered, of the abdominal aorta. There was probably also dilatation of the ascending aorta; for, with hypertrophy of the heart, there was no marked dilatation in the subclavian or brachial arteries.

Such enormous widening of the vessels, says Krauspe, must clearly cause great obstruction to the blood-stream; and this is compensated for by the hypertrophy of the left ventricle. In regard to the relation of hy-

pertrophy of the left ventricle to thickening of the arterial walls, one might ask which of the two changes in the present case had been the first, the vascular or the cardiac. The author believes that the aneurismal change in the vessels was the original disease, because in the first place there were sacculated aneurisms in addition to the general dilatation; and, secondly, because there was not dilatation of all vessels under the same conditions. There was probably then an aneurismal diathesis to start with, and a consequent hypertrophy of the heart.

The cervical veins have been already described as excessively dilated in this patient. The external jugular veins were like thick cords. The right internal jugular vein was uniformly dilated, reaching, at the point corresponding to the valves, the breadth of three centimetres. Krauspe confesses that this dilatation of the veins of the neck is very difficult to account for. It was probably due, he thinks, to the long-standing emphysema, with some aggravating local cause, such as the pressure of the dilated aorta, or the effects of a large abscess of the neck, from which the patient had suffered many years before.

In February, 1873, a woman, aged 23, came to him with severe pain about the middle and just outside of the right tibia, of two or three years' standing; much more severe during past year. Attacks were like flushes, extending generally upward, lasting from a few minutes to one or two hours. No cause named, unless fatigue. There was slight discoloration of the skin, as large as a pin's head. Blood-vessels of skin not enlarged. On pressure, a body of the size of a bean was felt, rolling under the fingers, seemingly in the cellular tissue, and attached by a small point to the skin; not tender, except when pain was severe. Tumor was removed, with the attached piece of skin. No pain since. Tumor was as large as a bean, firm, imbedded in cellular tissue; connected with capsule, but otherwise free. Being cut open, a white surface was presented, of cartilaginous hardness, without blood-vessels. No nerve-cells were found with a moderate magnifying power.

The first and best general description is given by Wm. Wood, in *Edinburgh Medical and Surgical Journal*, in 1812; it also received its name from him. Dr. J. C. Warren, the elder (Surgical Observations on Tumors, p. 59), describes three cases; in two, removal was not allowed. In the third, a man had suffered seven years, and for four very severely, from pain about three inches below the knee. When seen by Dr. Warren, there was an open ulcer, following the use of caustics; physical condition bad, with cough, purulent expectoration, quick pulse, emaciation, etc. Amputation was performed, and patient recovered in three months.

These tumors occur in adults; and in women rather than men, in the proportion of four to one. Paget (Surgical Pathology, Second American edition, p. 393) says, "They may be formed either of fibro-cellular or fibrous tissue, in either a rudimental or a perfect state," or "they may be fibro-cartilage."

Wedl (Pathological Histology, p. 401) found "a new formation of connective tissue which, at any rate for the most part, retained an embryonic character. Not a trace of nerve-substance could be discovered in the interior of the nodule." Billroth found muscle-cells, but no nerves; Bärensprung, peculiar knots upon the blood-vessels around tumor. Paget thinks they are not neuromata, because nerve-fibres cannot be demonstrated in them; because neuromata are often multiple, are unlimited in size, and are most frequent in the male sex; these occur singly, are smaller in size, and more frequent in women.

Some observers consider these tumors to be developments of the Pacinian bodies.

Virchow (Die Krankhaften Geschürelste, vol. iii. p. 241) says that he has seen one removed from the knuckle, which a nerve entered and left, and the mass was made up of obscure nerve-fibres. He adds, that most pathologists of the present day would call such tissue briefly fibroid, fibro-plastic, or fibro-nuclear, and thinks that we need more and more exact observations.

There is a point worth noticing. Cartilage is not known to have nerves; it is not sensitive; when inflamed, it is extremely sensitive, but even then it has no nerves, so far as is known. Has not cartilage assumed new functions? In painful subcutaneous tumors, has not connective tissue similarly assumed new functions?

Case of Renal Abscess, with Contained Calculus, successfully Relieved by Operation.—This rare case is reported by Mr. Thomas Annandale, in the *Edinburgh Medical Journal*. The patient, a farmer, aged sixty-three, had been suffering for several weeks from gastric and renal derangement, the symptoms increasing in severity, and finally pointing pretty clearly to some affection of the right kidney. The first examination determined that there was tenderness on pressure over the lower half of the right kidney, and below it in the direction of the ureter. A very slight fulness in the same region was noted, but no marked swelling could be detected. No fluctuation could be felt, and the introduction of a fine trocar in the lumbar region gave no result.

At the expiration of nearly a month, he was seen for a second time by Mr. Annandale, and upon this occasion his symptoms were very much worse. It was now thought that deep fluctuation could be detected through the anterior abdominal wall, just below the region of the affected kidney, and, in accordance with the urgent request of the patient, it was decided to try and do something for his relief, and make at least an exploratory incision. The incision was made through the abdominal wall, in the situation and direction of the incision employed for the ligature of the common iliac artery. Pushing aside the peritoneum and abdominal contents, the psoas muscle was reached with the finger; by the inner side of this muscle an abscess was detected, and within this abscess-cavity was found a calculus, the size of a horse-bean, which was seized with the forceps and removed.

The operation gave great relief, and the patient improved steadily up to the fifth day, when a small quantity of thin, feculent matter passed the wound, and fæcal matter continued to pass the wound for nine days after the operation, from which time no further discharge was observed. By the end of a month the patient had apparently made a good recovery.

In commenting upon this case, Mr. Annandale remarks that the whole trouble had its origin in a renal calculus, which had given rise to suppuration and ulceration, and in this way escaped from the kidney. The abscess, passing downwards, was preparing to empty itself into the ascending colon or cæcum; in fact, a small opening of communication with the intestine had already been made, and the further destruction of the intestinal wall was only prevented by the free escape of pus. The result of this case affords additional encouragement to surgeons to operate early in cases of abdominal or pelvic abscess, in which the timely use of the knife may relieve suffering and even save life.

Acaro-dermatitis Autumnalis.—Dr. J. W. Southworth, of Toledo, Ohio, describes, in the *Detroit Review of Medicine and Pharmacy*, this affection, which is found mostly on the lower extremities of laborers and others who frequent vineyards and harvest fields of grass or grain, in the latter part of the summer and autumn. It

presents itself as a more or less pruritic and intense erythemation, in patches of greater or less size, according to the number of parasites present. Occasionally, wheals are formed in the immediate vicinity of the animalcules, especially in sensitive subjects who have indulged in much scratching. The skin may be lacerated and swollen. Violent inflammation of the latter, and of its underlying tissues, resulting in sloughing, suppuration, or gangrene, to such an extent as to imperil life or necessitate amputation of the affected limb, has been known to occur. This latter is reported to have happened among some troops at Martinique.

Its cause is the attacks of the acarus autumnalis, or harvest-mite, which, on account of its bright-red color, is also called *rouget*, or *bête rouge*, by the French. Septus autumnalis is another synonym. Neumann states that Gruby has described this parasite in the *Allg. Med. Zeitung*, 1863, under the head of aracnide.

The diagnosis is quite easy, as the acarus is readily found, with its blood-distended abdomen, partially imbedded in the inflamed tissues; a minute, red, oval body, requiring a little care and close inspection to detect in some instances. It may be found on almost any portion of the skin, but is chiefly met with on the inferior extremities.

The treatment is by careful removal of the parasite with forceps where there are only a few; and when the reverse is the case, the application of some efficient parasiticide, as a spirituous solution of carbolic acid, corrosive sublimate, or camphor sufficiently diluted with water to prevent any increase of the existing inflammation.

The after-treatment may be of any of the usual cooling, bland, or astringent lotions, such as solution of acet. plumbi or acet. ammoniæ in water, vinegar and spirits of wine, camphor-water, etc., all of which must be applied according to the principles of surgery adapted to traumatic dermatitis.

[We think this is the same insect which is known in the Eastern and Middle States as the *tick*, and which is met with abundantly in the dry, sandy regions where one species of whortleberry grows.—Ed. *P. M. T.*]

Sympathetic Disease in the Marrow of Bone in cases of Internal Disease (Dr. E. Ponfick: *Virchow's Archiv*, vol. 56, 4th part, 1872).—Before Neumann and Bizzozero had pointed out the close relationship between the parenchyma of the spleen and medulla of bones, and had likewise pointed out the important part this medulla of the bones plays in the formation of the blood, Von Recklinghausen demonstrated, by means of experiments, the analogy existing between certain elements of both organs. He found that after the introduction of insoluble coloring-matter into the circulation, a rapid passage of the same took place into the parenchyma of the most various organs, among them the medulla of bones. He also showed most conclusively how great a part the contractility of certain medullary elements plays in the vital processes of the internal organism.

The experiments which Ponfick has made at the suggestion of Von Recklinghausen, to carry out still further these views, have led to the following results:

These cell-forms belonging to the medulla of bones, which resemble morphologically the elements of the "spleen-pulp," correspond also, in general, with the latter in their reaction with the granules of the coloring-matter conducted to them through the blood; and also in all important and essential points. The two first-named observers demonstrated that analogous features in the circulation existed both in the spleen and medullary structure of bone, since the small arteries pass directly into disproportionately larger blood-vessels, bounded by an extremely thin and delicate membrane, the analogue of the cavernous veins of the spleen. In the experiments performed by Ponfick upon animals deprived of their spleens, this fact has been established, viz.: That the cinnabar introduced into the blood of animals previously deprived of their spleens arranges itself in the same places and in the same way in the marrow of such animals, thus proving the entire independence of the medullary and splenic deposition of the cinnabar, as well as the co-ordinate position of the two structures in relation to the blood.

Change of Color in the Hair (*Lancet*, May 7).—Several historical and well-known cases (as those of Maria Theresa, Ludovico Sforza, and Mary Stuart) corroborate the simple but affecting statement made by the Abbé Lefevre the other day in the Tichborne trial in reference to the sudden change of color his hair had undergone. He had heard, he said, of the death of his father, and on the following night dreamt that the details of his death were enacted before his eyes. He awoke terribly agitated, and found that his hair had become white. A curious instance lately came under our observation, in which a black retriever puppy received a violent kick from a horse, which caused fracture of the thigh. By the time the fracture had united, the dog's hair had changed from a deep black to a light brindle. The dog is now fully grown, but the hair has not recovered its original color.

To what can this change be attributed? The answer is not easy. Is it due to the extrication of air? Is it a consequence of the absorption of pigment, or the result of the action of some chemical compound, as an acid, eliminated by the skin? Under any circumstances it is singular that the influence should be limited to the hairs alone, and should not, apparently, otherwise affect the integument. The circumstances under which it usually occurs point to the nervous system as a principal agent, and this is supported by the occurrence of white hairs in the eyebrows and temples after severe attacks of neuralgia. Still, it may be asked, is it an instance of the direct action of the nervous system upon the hair-cells, or indirect upon the vessels of the surface? It would be interesting to know how the white color makes its appearance—from the apex to the root, or *vice versâ*.

The Pathology and Treatment of Hooping-cough (*Ib.*).—In a paper published in the *Swiss Correspondenzblatt* of April, 1873, Dr. Rudolf Meyer, of Zurich, gives an interesting account of some auto-laryngoscopic observations he made whilst suffering from a well-marked attack of this disease. He found the mucous membrane of the under-surface of the epiglottis and of the adjoining parts of the entrance into the glottis, and especially that covering the so-called arytænoid cushion, swollen and red, whilst that of the adjoining parts of the pharynx was also distinctly inflamed. The vocal cords and the lateral and internal parts of the larynx were normal. The inflamed parts were highly sensitive, the least touch bringing on spasmodic cough. In another case, occurring in a middle-aged woman, the same conditions were ascertained to be present. Dr. Meyer effected a cure in his own person in a few days by insufflating some powdered alum; but on trying the same plan with the lady, retching was induced, and he was obliged to use solutions of alum and tannin, which proved successful, though less rapid in action. The plan suggested by Dr. Meyer may be carried out with advantage in adults who are steady, but it is difficult to see how it could be applied in children.

Causes producing the Development of the Sexes (E. Baust: *Stuttgart. Journal für Kinderkrankheiten*, 1872, Hefte 3-4).—The first point considered in this work is the natural tendencies in the development of the sex of the embryo. Under this head there are three

hypotheses. 1. All embryos tend to become females,—a very old theory. 2. The embryo from its beginning has its peculiar sex (Carus, Rathke, Burdach). 3. The theory of St.-Hilaire, Ackermann, Müller, and others, that the embryo possesses no sex, but gradually develops into a male or female according to its inherent tendencies. A variety of experiments upon plants gave the interesting results that by means of heat, light, and absence of moisture we may produce specimens of the male plant, while in the shade, dampness, and by means of manure we can produce more female plants. Hence we may assume the following law: Influences which predispose the seed to rapid development will be apt to engender females, while influences of an opposite nature will most likely produce males.

In accordance with this theory is the fact that honey-bees, the workers, which grow to maturity under meagre nourishment, may become perfect females if while in a larval condition they are fed with the food of the queen bee.

There is also another important element in the development of the sexes, drawn from the difference in the ages of the parents. The investigations of Hofacker, Sadler, Göhlert, and Boulenger have shown that when the age of the husband greatly exceeds that of the wife, more male children are born, and when the father is younger than the mother, more girls than boys are born.

Fraenkel on Placental Syphilis.—Dr. Ernest Fränkel (*Archiv für Gynaekologie*, April, 1873), in a most interesting and exhaustive paper on this subject, illustrated by some well-executed plates, and recording in detail the particulars of more than twenty cases, arrives at the following conclusions:

1. The placenta may become syphilitic, and there are certain characteristic indications of this.

2. The syphilitic placenta occurs only in hereditary or congenital syphilis in the fœtus.

3. The seat of the disease is different, according as the mother remains healthy and the syphilitic virus is communicated directly from the father to the ovum by means of the spermatozoa, or according as the mother is diseased.

In the former case, the affected fœtal villi of the placenta degenerate through cellular granulation, with consecutive obliteration and atrophy of the vessels, complicated frequently by marked proliferation and condensation of the epithelial covering of the villi.

4. In the second case, when the mother is syphilitic, the three following conditions are possible:

a. The mother, through the act of impregnation, is simultaneously affected with syphilis with the fœtus; diffused syphilis of the placental villi may then develop itself, but primary infection of the maternal parts—endometritis placentaris—is not excluded.

b. The mother has been infected with syphilis before or shortly after conception. The placenta may remain normal, or become diseased under the form of endometritis placentaris gummosa, or (according to Virchow) in a narrower sense—endometritis decidualis.

c. The mother becomes infected only during the latter months of pregnancy (seventh to tenth month). It then generally happens that, in case the father was healthy at the time of impregnation, the fœtus as well as the placenta are exempt from the alterations described above.

5. The infection of the fœtus by passing through the genital canal of the mother is rare, and not yet proved beyond doubt.

The Blood in Relapsing Fever.—According to the observations of Obermeier (*Medical Times and Gazette*, March 29, 1873), the blood of persons laboring under relapsing fever contains peculiar filiform bodies, which exhibit very active spontaneous movements. A drop of blood extracted from such a patient, and mounted, as usual, with the necessary precautions, presents these bodies among the corpuscles when magnifying powers of 400 to 900 are employed. They appear as extremely delicate threads of the thickness of a fibrous filament, and of the great length of one and a half to six times the diameter of a red blood-corpuscle or more. Several of the bodies may be seen on the field at once; and so long as the preparation is fresh, they exhibit active movements,—not only changes of form, moving and alternately coiling and uncoiling, but also changes of locality, by which they slowly or suddenly escape from the field of view. Altogether, the movements remind one of spermatozoa. Hitherto, Obermeier has found these filaments during the fever only, and shortly before or during the crisis,—not in the interval. Sometimes they are to be seen one day, and not the next. He could not find similar bodies in the blood of healthy persons, or of persons suffering from other diseases. Of their nature, he will not yet give a decided opinion.

The Phrenic Nerve passing through a very Narrow Island (Insel) of the Subclavian Vein (Wenzel-Gruber: *Virchow's Archiv*, January 10, 1873).—This peculiarity was observed in March, 1872, on the left side of a male subject which had been given to the medical students for the purpose of making a preparation of the vessels and nerves of the trunk.

The left subclavian vein divided into two branches in front of the anterior scalenus muscle, 1.4 centimetres exterior to its junction with the internal jugular vein, forming the left anonymous vein. There was an anterior as well as a posterior branch. The anterior branch was 7.8 millimetres, the posterior one was 6 millimetres wide. After running a distance of 4 millimetres, the branches united to form a common trunk. Thus the left subclavian vein, 1 centimetre external to its junction with the internal jugular vein, had formed a very narrow island (*insel*). This had the appearance of a very narrow opening, which possessed a transverse diameter of 4 millimetres and a vertical diameter of 2 millimetres. The phrenic nerve passed obliquely through this ring from above and without downwards and inwards. The nerve passed over the posterior branch, while the anterior branch lay upon the nerve.

Thus the left subclavian vein looked as though it were perforated by the left phrenic nerve.

A similar case has never been, so far as the author knows, reported in the literature of anatomy. The preparation is in his cabinet.

Alterations of the Nervous System of the Great Sympathetic in Cases of Constitutional Syphilis.—Dr. Petrow (*Virchow's Archiv*, Band 57, Heft 1, 1873), on examining portions of the plexus of the great sympathetic which he had taken (ten to twenty-four hours after death) from the bodies of individuals affected with acquired constitutional syphilis, has stated two sorts of pathological changes: 1. Modifications of the protoplasma of nervous cells, which become loaded with brilliant pigmentary corpuscles, increasing with the age of the disease, and often accompanied by colloid transformation of the cells; the cells of the endothelium surrounding the nervous cells frequently undergo the same gelatiniform transformation, and cannot then be distinguished from the nervous cells. These changes can exist without the interstitial connective tissue being impaired. 2. Modifications of the interstitial connective tissue with hyperplasia of the fibres, constituting large, irregular fasciculi, which push aside and compress the nervous cells and fibres. The cells are then atrophied, irregular, and dotted with pigment, whilst the fibres are flattened, and their myelin shows slight granulations.

THE TEMPERATURE IN DIPHTHERIA (by Dr. G. Faralli: *Le Mouvement Médical*, April 26, 1873; from *L'Imparziale*, March 1, 1873).—The author studied an epidemic of diphtheria with a view of noting the state of the temperature,—a subject which has given rise to much discussion. His observations are as follows:

1. At the onset, chills, vomiting, convulsions, delirium, and in a few hours the thermometer rises to 40° (C.). From this moment the temperature gradually falls until the third or fourth day, when the patient becomes apyretic (benignant form).

2. In other cases the temperature rises again on the fourth day, but never to the degree reached at the onset of the disease. This is due to the formation of new diphtheritic patches on the side previously unaffected, or to the engorgement of glands.

3. This secondary infection is particularly evident in the typhoid form, the column of mercury continuing to ascend until the moment of the patient's death.

These characters are subject to variations from complications; as for example in cases where stenosis of the larynx causes death, the temperature may remain normal.

PATHOGENIC INFLUENCE ON THE SKIN OF BROMIDE OF POTASSIUM EMPLOYED INTERNALLY.—In the *Wiener Med. Wochenschrift* (No. 6, 1873), Dr. J. Neumann has investigated the above subject. The author recalls the observations of Voisin of Paris, and Mitchell of Philadelphia, according to whom the employment of bromide of potassium in weak doses brings on eruptions similar to acne, with itching and the consecutive formation of indurated tubercles; whilst the prolonged use of the substance gives rise to the production of red tumors, which often become sore, of carbuncles, anthrax, eczema, and nettle-rash. Dr. Neumann states that, for his own part, he has observed eruptions very much like molluscoid acne coming on in successive outbreaks, and, in another case, a carbuncular eruption consisting of infiltrated tumors, with considerable loss of substance in the centre. The author inclines to think that the bromine passes into the blood, and thence into the various glands of the skin, and he accounts thus for the production of the eruption. It is known that the presence of bromide of potassium has been observed in urine, saliva, and the secretions of the skin.

ULCERATION OF THE TRACHEA AFTER TRACHEOTOMY (*British Medical Journal*, May 3).—Mr. Bennett May exhibited the trachea of a child, showing an erosive ulcer in its interior, which had terminated fatally by hemorrhage after tracheotomy. The operation had been done for œdema of the glottis following the imbibition of boiling water. The trachea-tube was removed on the fifth day, and, on reintroducing it a few hours afterwards to relieve the dyspnœa caused by the accumulation of mucus at the wound, a sudden gush of blood deluged the parts and destroyed the child. The ulcer due to the pressure of the tube was not above a line in depth, and appeared to have opened one of the anterior thyroid veins.

CARBOLIC ACID IN DIPHTHERITIS (*Deutsche Klinik*, No. 20, 1871; quoted from *Journal für Kinderkrankheiten*, vols. iii. and iv., 1872).—Dr. Helfer, in Leipsic, has tried this drug in a series of cases of scarlet fever complicated by diphtheritis, after all other remedies had failed. It was used as a gargle in the strength of 1 to 200 every half-hour; for the "atomizer," 1 to 50 every two or three hours.

INVERSION OF THE UTERUS (*British Medical Journal*, May 3).—Mr. Prankerd read to the West Somerset Branch of the British Medical Association notes of an interesting case of inversion of the uterus which occurred a week after parturition, and, having resisted ordinary modes of reduction, gradually gave way under the continued employment of an air-pessary.

MISCELLANY.

AN ADVENTUROUS LIFE.—*The British Medical Journal* of April 26 contains the following account of the career of the late William Brydon, C.B., Surgeon-Major Bengal Army, and Highland Rifle Militia:

"He received the appointment of Assistant-Surgeon in the Honorable East India Company's Service, and landed in Calcutta in October, 1835, and, after a short stay there, was ordered up-country with European recruits. At Kurnaul he was temporarily attached to the artillery and Her Majesty's 13th Regiment, till posted to the 4th Lancers (native) as Assistant-Surgeon.

"He went twice with Sir Henry Fane, and a third time with the Governor-General, Lord Auckland, on escort-duty to Runjeet Sing's court, then in all its glory at Lahore.

"In 1839, he was put in charge of the 5th Native Infantry at Ferozepore, and marched with them through the Punjaub and Kyber pass, in the ill-fated expedition to Afghanistan. Here he saw much service when attached to Shah Soojah's 6th Regiment, and at the destruction of the robbers' forts in the Toormat Valley. Returning to Cabool before the disturbances broke out consequent on the vacillation of the British leaders, he was in the Balahissar for about three weeks; he then removed to the cantonments, and was in the fatal retreat in January, 1842. He suffered unparalleled privations in the march through the tremendous passes and narrow gorges of the Koora Cabool from the fire of the enemy and the inclemency of the weather, reaching Jellalabad wounded in the knee, badly in the left hand cut across by a sabre, and seriously in the head by an Afghan knife, which, but for a *Blackwood's Magazine* in his forage-cap, must certainly have killed him. He was thus the first and "last man" (the *sobriquet* by which he was known among Europeans in India), and gave the doleful tidings of the fate of the army (including camp-followers) of 16,500 that had miserably perished. He was one of the 'illustrious garrison' that held Jellalabad under General Sale, and, on Sir George Pollock reaching the beleaguered fortress, was attached to the 33d Native Infantry, and with that general retraced his steps to Cabool with the army of retribution, which on its return to Ferozepore in 1843 was received with high honor by the Governor-General, Lord Ellenborough. From this time he was chiefly in the Bhopal State—the Begum of which was honorably distinguished for her loyalty to Britain in 1857—till promoted in 1849 to the rank of Surgeon and posted to the 40th Native Infantry, with which he was sent to Burmah in 1852, being present at the taking of Rangoon, Prome, etc.

"After eighteen years of active service, he returned to his native land for three years on sick-leave, at the expiry of which India again, in the throes and convulsion of a rebellion, received his valuable services. During the siege of Lucknow he was severely wounded in the lower part of the spine by a rifle-bullet, which passed through his body from the left to the right side, and

from which he suffered during the rest of his life. In 1857, he was sent in charge of the field hospital from Lord Clyde's army at Cawnpore to Allahabad, holding various charges there, and subsequently being surgeon superintending at Dinapore. In 1859, he retired from the service on his well-earned laurels. Few medical officers have seen and passed through such arduous service, and none could grudge the honors conferred by his country in decorating him with medals for Jellalabad, Cabool, Burmah, clasp for Pegu, clasp for Lucknow, and Companion of the Bath in 1858.

"Settling down in the quiet Highland retreat of Westfield, Ross-shire, he sought rest in country pursuits, yet was ever ready to administer relief to the many who sought his advice. He was carried to his last resting-place in the Rosemarkie Burying Ground, followed by sorrowing relatives and the heartfelt regret of friends and neighbors, for a better and braver man than William Brydon one rarely met."

An Ethnological War.—The *Lancet* says that the enmity between France and Germany has been transferred from the battle-field to the lecture-room, and M. Quatrefages has been eagerly followed in his disparaging speculations as to the genesis of the North German race. M. Quatrefages, on the publication of his views last year, was held to have done more harm to his own reputation than to the Prussians, and scarcely deserved the elaborate and conclusive refutation he experienced at the hands of Professor Virchow. If M. Quatrefages could prove that the Prussians came originally from the table-lands of Central Asia, he would only be doing what Dr. Prichard long ago did for the whole Celtic race,—the French part of it included. But, arguments from anatomical structure and moral development apart, the question of language is enough to dispose forever of all attempts to find a Mongol progeniture for the North Germans,—a question in which the French *savants* are as little a match for their German antagonists as Benedetti was for Bismarck, or MacMahon for Moltke.

Diseased Meat.—The *British Medical Journal* of May 10 says that, "At the police court in Dublin last week, a woman named Murtag was fined by the presiding magistrate the sum of £10 for exposing meat which was diseased for sale. The offender would have been sentenced to imprisonment but for the mistaken clemency of the solicitor for the Public Health Committee, who were the prosecutors, who begged the magistrate to inflict a fine because the defendant was a woman. Among the many privileges claimed for the sex, this is one of the strangest and least admissible. Women may be allowed to lecture us, to govern us, or to doctor us, but not to poison us."

Cholera in Austro-Hungary.—From the same source we learn that "The reports from Silesia on April 17 show that cholera had entirely ceased in that province of the Austrian empire. From its outbreak on November 28, 1872, to the above-named day, 702 cases had occurred in thirty localities with a population of 35,110 inhabitants; 374 had died, and 328 recovered. In Hungary, cholera has reappeared in several districts. In Pesth, which had been free since January 20, it broke out again on March 26. From March 26 to April 15 there were 74 new cases, of which 15 recovered and 39 died. In Galicia, during the first half of April, 201 new cases occurred; making, with 42 remaining under treatment, 243, of which 89 recovered and 88 died.

Physiological Observations on the Action of Light.—At a recent meeting of the Edinburgh Royal Society, Professor Dewar read a paper on further physiological experiments on the action of light, made by Dr. McKendrick and himself. He detailed the effects of light when the various parts of the eye were used for the purpose of determining electro-motive values, and also the effects of varied alkaloids on the sensibility of the retina. He showed that the moment light impinged on the retina the electro-motive force rose, and that there was also an increase of electro-motive force the moment light was withdrawn. They also traced the action of light not only into the optic nerve, but into the brain. The paper concluded with the measurement of the effects of different luminous intensities on the eye; and the authors showed that the experimental results agreed very closely with Fechner's psycho-physical law.

Lord Shaftesbury, the great social reformer, told, in a recent speech, of his having whitewashed and painted one of the dark houses occupied by a family in one of the foul districts of London, and a short time after returning to find it worse than ever. He said, "What on earth is this?" And the reply was, "Please your honor, the house looked so cold and uncomfortable that I sent for a sweep and asked him to give us a few warm touches."

Liberal.—A recent daily paper says, "As an encouragement to medical men, who certainly have enough to discourage them, we must mention the liberality of a grateful father in Augusta, Maine. Dr. C—— was called to attend a little child, and, after assiduous attention for three or four days, succeeded in rescuing the sufferer from the scarlet fever. The grateful father sent to Dr. C—— a fee of $1000."

In the report of the Health Department of New York for the year 1872, alcoholism is returned as the direct cause of death in 314 cases; delirium tremens in 102 cases; and, indirectly, intemperance is given as the cause of death in altogether no less than 826 cases.

Medical Society of the State of Pennsylvania.—The annual meeting of this body will be held in Carlisle, beginning on Wednesday, June 11.

Dr. David Skae, for twenty-seven years physician to the Morningside Asylum (for the insane) at Edinburgh, died recently, in his sixty-fifth year.

A second human skeleton (pre-historic) is now said to have been discovered in the caves of Mentone. Human remains have also been found near Laval.

The cave in which they were found contained chipped flints, incised bones, and a hearth with calcined bones, together with the remains of many animals, among which the cave hyena, the common fox, the woolly rhinoceros, the horse, and the reindeer are enumerated. In a quarry in the neighborhood of the cave an interesting series of animal remains has been found, including the cave hyena, the cave lion, the marmot, a large hare, the mammoth, and the woolly rhinoceros, besides the fox, boar, horse, and several oxen and deer. Numerous bones of birds were also found.

THE Paris correspondent of the *Lancet* says that each of the four large hospitals of Paris where clinical medicine is officially taught has recently been endowed with a special and complete laboratory for researches in morbid anatomy, histology, and medical chemistry. Morbid specimens will thus be examined in every way by the gentlemen attached to the laboratory, who are appointed by the Minister on a list of presentation drawn up by the professors at each hospital. Those now in office are Dr. Lionville, at the Hôtel-Dieu; Dr. Nepveu, at La Pitié; Dr. Cornil, at La Charité; and Dr. Hybord, at the Hôpital des Cliniques.

THE MEDICAL SCHOOL AT NETLEY.—The session at Netley was opened on April 2, by an introductory lecture from Dr. De Chaumont, Assistant Professor of Hygiene. The numbers attending the course are as follows: Candidates for Indian army, sixteen; for navy, fourteen; naval surgeons on half-pay, six; army surgeons-major, five; army surgeons, twelve. The arrivals of invalids from India and other foreign stations have been very numerous lately, and nearly a thousand cases are now under treatment in hospital. Dr. Balfour, C.B., has assumed the duties of Principal Medical Officer.

ABORTION-MONGERS.—The *Clinic* says, "Such is the impunity with which this practice is carried on in Stamboul, that a pharmacien absolutely has for his sign the representation of a fœtus complete. A practitioner accused of this crime advanced in his defence the fact that he himself had invented an instrument for procuring abortion easily and satisfactorily."

AT the one hundred and seventh annual meeting of the New Jersey Medical Society, just closed at Mount Holly, Dr. T. J. Thompson was elected President; Drs. Schenck and Ryerson, Vice-Presidents; Dr. Pierson, Secretary. The meeting was well attended.

A NEW ARTICLE OF DIET.—Foreign advices state that the marmot, an animal analogous to our "woodchuck" or "ground-hog," has been introduced into the Parisian market, and has met with much favor among epicures.

MODERN INDUSTRY.—A Vienna journal contains the following announcement: "Anna Agrikol, sick-nurse, watches dead bodies, repairs straw chairs, applies leeches, and makes pastry desserts, and delicacies."

WEEKLY RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FOR THE WEEK ENDING SATURDAY, MAY 31, 1873.

DISEASES.	Adults.	Minors.	DISEASES.	Adults.	Minors.
Abscess	1	...	Fracture of the Leg	...	1
Albuminuria	1	...	Gangrene	1	...
Apoplexy	6	...	Heart Clot	1	...
Asphyxia	...	1	Hemorrhage from Bow'ls	...	1
Burns and Scalds	...	1	" Lungs.	1	...
Cancer	1	...	Hooping-Cough	...	1
" of Breast	1	...	Inanition	1	4
" Face	1	...	Inflammation of Brain	2	8
" Liver	1	...	" Bronchi	2	2
Casualties	4	3	" Heart	1	1
Cerebro-Spinal Meningitis	3	6	" Kidneys	1	...
Cholera Infantum	...	8	" Lungs	8	8
Congestion of Brain	3	6	" Peritoneum	5	...
" Liver	1	...	" Pleura	2	...
" Lungs	1	1	" Stomach & Bowels	4	4
Consumption of Bowels	1	...	Jaundice	2	...
" Lungs	33	8	Malformation	...	1
Convulsions	...	12	Marasmus	1	11
Croup	...	3	Old Age	12	...
Cyanosis	...	2	Paralysis	10	...
Debility	8	7	Paramenia	1	...
Diphtheria	...	2	Poisoning	2	...
Disease of Bladder	1	...	Pyæmia	1	...
" Brain	...	1	Rheumatism	1	...
" Heart	8	2	" of the Heart	3	...
" Kidneys	4	1	Rupture	1	1
Dropsy	2	3	" of Brain	...	3
" of Brain	1	4	Smallpox	1	4
" Chest	1	...	Softening of Brain	2	...
" Heart	2	...	Still-Born	...	15
" Ovaries	1	...	Stricture of Pylorus	1	...
Drowned	6	3	Suicide	2	...
Dysentery	1	...	Syphilis	1	1
Effusion on Brain	1	...	Teething	...	1
Erysipelas	...	1	Tumors	3	...
Fatty Degene'n of Heart	1	...	Ulcers	1	...
" Liver	1	...	Unknown	1	...
Fever, Inflammatory	1	...	Uræmia	1	...
" Puerperal	1	...	Wounds, Gunshot	1	...
" Remittent	1	1			
" Scarlet	...	13			
" Typhoid	6	...			
TOTALS				182	154

METEOROLOGICAL OBSERVATIONS TAKEN AT THE SIGNAL OFFICE, PHILADELPHIA, DURING THE WEEK ENDING SATURDAY, MAY 31, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain. In.
MAY.				
Sunday 25th	29.96	71	Fair, Clear.	.....
Monday 26th	30.09	74	Fair, Clear.	.....
Tuesday 27th	29.96	70	Fair.	.....
Wednesday 28th	29.86	78	Fair.	.01
Thursday 29th	30.01	75	Fair.	.....
Friday 30th	30.10	65	Clear, Cloudy.	.08
Saturday 31st	30.42	57	Clear.	.....
Means	30.05	70		.09

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM MAY 27, 1873, TO JUNE 2, 1873, INCLUSIVE.

HARTSUFF, ALBERT, ASSISTANT-SURGEON.—Relieved from duty in Department of the Lakes, and ordered to Department of the Platte for assignment to duty. S. O. 105, A. G. O., May 26, 1873.

MIDDLETON, J. V. D., ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Fort Buford, D. T. S. O. 107, Department of Dakota, May 22, 1873.

YEOMANS, A. A., ASSISTANT-SURGEON.—Relieved from duty in Department of the East, and ordered to Department of the Missouri for assignment to duty. S. O. 105, c. s., A. G. O.

STYER, CHARLES, ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Chattanooga, Tenn. S. O. 102, Department of the South, May 27, 1873.

SATURDAY, JUNE 14, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF HYDROTHORAX IN WHICH PARACENTESIS WAS PERFORMED.

Delivered at the Philadelphia Hospital, May 31, 1873,

BY WILLIAM PEPPER, M.D.

(Continued from page 563.)

GENTLEMEN:—As I before said to you, the only plausible explanation of the fact that the pleural effusion in this case of suspected cirrhosis of the liver is limited to the right side is to be found in the peculiar condition of the lungs and heart. A very careful examination of these was made on May 20, with the following results:

The *right* thorax was markedly distended, with slightly bulging intercostal spaces. The respiratory movements of this side were almost entirely abolished. There was absolute flatness upon percussion, extending from the lower line of liver dulness up to the second rib, above which there was sub-tympanitic resonance. Respiratory murmur was almost entirely absent over this area of dulness, nothing being heard but feeble and distant bronchial breathing. Over the clear area at the apex there was rude broncho-vesicular breathing. Vocal resonance and fremitus were almost annulled. On placing the fingers of the left hand in the fourth, fifth, sixth, and seventh costal interspaces of the right side, and percussing sharply over the uppermost finger, a feeble but distinct sense of fluctuation was perceived by the lower fingers. This was best observed when the patient was sitting.

The respiratory movements of the *left* thorax were exaggerated; there was no bulging of the intercostal spaces, but, on the other hand, during each inspiration there was a marked retraction of the soft tissues in the lower interspaces, and of the epigastrium. Percussion-resonance was everywhere normal. The respiratory murmur was clear throughout, with some coarse, moist crackling at the lower part of the posterior surface.

The position of the apex-beat of the heart varied with the respiratory movements. In the recumbent posture, it descended during full inspiration to the sixth interspace, about three-fourths of an inch to the left of the left nipple; while during expiration it rose to the fifth, and finally to the fourth interspace, just within the line of the left nipple.

With each systole of the ventricles there was distinct retraction of the nipple and soft tissues immediately surrounding it; this was most marked during expiration, evidently because the nipple shared in the general retraction of the lower intercostal spaces which took place with inspiration. The retraction of the nipple was, however, quite distinct from this latter respiratory retraction. There was no præcordial thrill, nor any pericardial friction-sound. The heart-sounds were free from murmur; the first being indistinct and feeble, the second somewhat duller than normal. The sounds were also at times reduplicated. This reduplication was intermittent and irregular, being wholly absent from certain beats, affecting only the second sound, or again presenting itself as a repetition of both cardiac sounds without any corresponding radial pulsation. The relations of this reduplication to the respiratory rhythm were difficult to determine. In the majority of beats it presented itself merely as a splitting of the second sound, and this occurred both with inspiration and expiration; and then, at irregular intervals, and this usually during inspiration, there was a reduplication of both sounds. The *deep area of cardiac dulness* extended from the lower border of the third interspace downwards to the sixth interspace, and from just within the left border of the sternum outwards to half an inch to the left of the nipple-line. The *pulse* was irregular in frequency, rhythm, and force, but without dichrotism or any quick, small beats (so often met with in cases of irregularity of mitral origin) corresponding with the reduplicated heart-sounds. There was moderate distention of the jugular veins, but no distinct collapse of these vessels attended inspiration.

During the early part of May there had been several rather alarming attacks of dyspnœa, with feeble and tumultuous action of the heart, which had subsided in a few hours; but on May 20 there was an attack of most threatening character, attended with terrible increase of dyspnœa, general venous congestion, lividity of face and hands, and extremely feeble, irregular action of the heart. The prompt administration of repeated large doses of digitalis and whisky seemed to rescue him from impending death; but it was two days before he recovered from the shock.

Fearing a repetition of such an attack, I determined to perform paracentesis, and on May 24, the patient sitting in a chair, I made a small incision through the derm over the sixth rib about 1½″ outside of the right nipple-line, drew the skin downwards so that the incision corresponded to the sixth interspace, and introduced a fine canula with a needle-point into the pleural cavity. An aspirator was attached to this (a small air-pump with a barrel holding about two fluidounces, and with a ball-valve so arranged in its nozzle that on being rotated in one direction by a little handle a communication is made between the canula and the barrel of the pump, while, when the valve is reversed, this communication is closed, and the barrel is connected with a lateral outlet, through which its contents can be forced by pushing the piston home). By gently working this, I succeeded in drawing off one hundred and sixteen (116) fluidounces of clear, pale, straw-colored serum without the entrance of any air to the pleural cavity. The effects of this were immediate and gratifying: the respiratory movements of the right side returned, and percussion became resonant down to the sixth rib. At this point the exhaustion of the patient compelled us to discontinue while yet there was evidently more fluid in the pleural sac (probably not less than thirty fluidounces). The right lung expanded promptly, and vesicular murmur with coarse, dry, crackling sounds was heard over the chest. The apex-beat of the heart returned to within the left nipple-line, but its position seemed comparatively little influenced by the withdrawal of so large an amount of fluid from the right pleural cavity. The canula was withdrawn, the incision closed by an adhesive strip, the entire right thorax surrounded by broad adhesive strips passing from the sternum to the spine, and the patient returned to bed, feeling relieved and easy.

Since that time—just one week—he has continued to feel much better. He eats well and sleeps comfortably. There has been no perceptible return of the pleural effusion, and the very slight effect of the operation itself upon his general condition may be judged from the following statement:

		Pulse.	Temperature.
May 24, at	8 P.M.	97 (regular)	100 3-5°
" 25,	12 M.	66 (intermitt.)	98 1-5°
" "	4 P.M.	64 (intermitt.)	99 2-5°
" "	8 P.M.	80 (regular)	99 1-5°

		Pulse.	Temperature.
May 26,	at 6 A.M.	73 (intermitt.)	98°
" "	12 M.	97 (regular)	99°
" "	6 P.M.	98 (regular)	99 1-5°
" 27,	6 A.M.	73 (intermitt.)	98°
" "	6 P.M.	86 (regular)	99°
" 28,	6 A.M.	75 (intermitt.)	98 1-5°
" "	6 P.M.	88 (regular)	97°
" 29,	6 A.M.	78 (intermitt.)	96 4-5°
" "	6 P.M.	86 (regular)	99 4-5°
" 30,	6 A.M.	75 (intermitt.)	98°
" "	6 P.M.	70 (intermitt.)	99°

I have placed him upon the use of iodide of potassium gr. v, with acetate of potassa gr. xv, thrice daily; and atropia gr. $\frac{1}{60}$, thrice daily, for its controlling action on the heart as well as for its diuretic power. I may add that careful percussion now shows that the area of hepatic dulness is materially decreased.

The evidence of a large effusion in the right pleural sac was clear enough here. The chest was too full to allow alterations in the patient's position to make much difference in the line of percussion dulness; but the dulness was of that peculiarly dead, flat type, with complete loss of elasticity, which is characteristic of large effusions, and rarely met with in mere consolidation of the lung. The vesicular murmur was absent over the dull area, and vocal resonance and fremitus were almost abolished. I do not attach so much importance to the auscultatory signs of large pleural effusions as to the other phenomena, since it happens often enough that vocal and respiratory sounds closely simulating those due to consolidation will be heard over the seat of the effusion, but due to transmission from the bronchi in the compressed lung. It is true that careful examination will usually detect their real origin; but no misinterpretation can well be placed upon the other signs, when we have the peculiar absolute flatness above referred to (often varying with altered positions of the patient's body), distention of the side with prominence of the intercostal spaces, and dislocation of the heart from pressure, all of which were present in this case. I have already mentioned an additional sign here detected, which is more rare: the sense of fluctuation detected by palpation in the lower intercostal spaces, or by percussing sharply on one finger placed over an intercostal space, while the other fingers are placed over the subjacent spaces to detect the fluctuation.

I will now invite your special attention to the signs furnished by the left side of the chest and the heart; and I believe that, after considering them, you will be inclined to think with me that our patient has both adherent pleura and pericardium. On questioning him closely, I find that in 1845, when he first suffered from symptoms of heart-disease, he had a severe attack of "inflammation of chest and heart," with much pain, which confined him to his bed for many weeks. Since then he has had several recurrences of severe pain about the heart and over the left thorax, with fever, and such general disturbance as to confine him to the house for several weeks. In the absence of any valvular lesion of the heart, this history certainly seems to point towards the occurrence of rheumatic pericarditis complicated with pleurisy. There are no friction-sounds now audible, but there are other reasons for adopting the view I have expressed. I do not think it likely that the heart would so closely follow the lung in its movements as to present a change in the position of the apex-beat from the sixth to the fourth interspace, unless there were adhesions between the pericardial and pulmonary pleura.

And again, the peculiar retraction of the lower intercostal spaces and of the epigastrium during inspiration, and that of the nipple attending the systole of the ventricles, are very significant signs of the presence of both pleuritic and pericardial adhesions. Add to this the positive increase in the area of cardiac dulness, without any valvular lesion, and note that this area is scarcely influenced by the stage of respiration. It is true that there is not the præcordial thrill which is felt in some cases of adherent pericardium, and that the moderately distended jugular veins present no collapse simultaneous with the diastole of the ventricles (which Friedreich has shown to occur in some cases of this lesion); but there are few conditions whose signs are more variable than this, and I believe that the phenomena which are here presented admit of no other satisfactory explanation. And I would suggest that it may be in consequence of the existence of such general pleuritic and pericardial adhesions that the pleural effusion has been limited to the right side, while on the left we find no evidence of free fluid in the pleural sac, but, on the contrary, the coarse, moist, crackling râles of congestion and œdema of the lung-tissue. I have on a good many former occasions had the opportunity of observing how, when a cause predisposing to general dropsy exists, and while one lung is free from adhesions, the other is tightly adherent, free serous effusion takes place on the one side, and is represented on the other by œdema of the lung-tissue and of the pleuritic adhesions.

I will, before speaking finally of the operation of paracentesis itself, allude to the bearing which its results had upon the diagnosis of this case. In the first place, the character of the fluid withdrawn was entirely in favor of the view that the hydrothorax was passive and not inflammatory in its origin. The canula encountered no difficulties from false membranes, no floating flocculi of lymph arrested the escape of liquid from time to time, and the fluid itself was singularly clear, light-colored, and free from spontaneously coagulable elements. All these points mark the difference between simple dropsical effusions in the pleura and those which depend upon inflammation of the membrane. Again, the withdrawal of the fluid enabled us to demonstrate what could not be definitely determined before, owing to the simultaneous presence of ascites and hydrothorax,—that the liver has undergone contraction, which, of course, is the most conclusive evidence in favor of the view that the initial lesion in this complicated case was *cirrhosis of the liver*.

The indications for the operation which has been performed here merit a moment's attention. It is unfortunately true that it can be regarded in this case as a palliative measure merely, and by no means as expected to permanently relieve the hydrothorax. There is, indeed, every reason to fear that, when a constant and probably incurable cause exists for the

production of the dropsy, it will but too surely and speedily recur. As a consequence, it would seem but proper to require the presence of far more urgent indications for paracentesis in such instances than would justify its performance in cases, as of subacute idiopathic pleurisy, where we might hope that it might effect a cure. It is of course difficult to formulate the principles which must guide us as to the use of this operation, but I would suggest the following rules as sanctioned by eminent authorities and approved by my own experience. In cases of simple pleuritic effusion, reaching up to the second or third interspace, so long as no urgent interference with respiration or circulation occurs, the operation should not be resorted to until a faithful and prolonged trial has been made with internal remedies and external applications to promote the entire absorption of the fluid. In case such treatment proves unavailing, and either the effusion begins to increase or the patient's strength begins to fail seriously, the operation is *justified*. In case evidences of the occurrence of purulent discharge from the pleural surface, gradually converting the hydrothorax into an empyema, should present themselves, the operation is usually *called for*, without regard to the presence of urgent symptoms of respiratory or circulatory embarrassment. In cases where the hydrothorax is due to some mechanical or at least non-inflammatory cause, as often happens in renal, hepatic, and cardiac disease, there is but little danger of the development of empyema, and the indications for paracentesis are based exclusively upon the interference with the action of the lungs and heart caused by the effusion. Whenever, finally, from whatever cause the hydrothorax proceeds, the amount of effusion has increased until respiration and circulation are constantly and alarmingly disturbed, as shown by rapid, feeble, irregular pulse, œdema of the feet, hurried, shallow breathing, lividity of the face and hands; or whenever, no matter what the *constant* amount of such disturbance may be, there are occasional paroxysms of violent dyspnœa, with great irregularity and weakness of the heart's action, the performance of paracentesis is imperatively demanded. I say this because, in such cases of extensive pleural effusion, sudden death is by means uncommon, and such patients live in constant danger of a rapid increase of the effusion to a fatal extent, or of an unusually violent paroxysm, in which the fatal result may occur.

You will remember how alarming was the attack which this patient suffered on May 20; and you will readily perceive the extreme danger that a repetition of such a paroxysm would have proved instantly mortal. Having failed to afford him any material relief by internal medication, I did not feel justified in exposing him to such danger, and therefore tapped his chest so soon as he had sufficiently reacted from the paroxysm. The operation itself is a very simple one. The effects of the entrance of air into the pleural cavity have doubtless been exaggerated; but still, in all cases where there is reason to believe that the effusion is merely serous, it is desirable to withdraw the fluid without permitting such a result. And this can be readily effected by puncturing the chest-wall with a needle-pointed canula furnished with an india-rubber tube, by means of which the effusion can be conducted below the surface of water in some suitable vessel, and thus allowed to escape without the possibility of air entering. Or we may secure the same results by the use of Bowditch's syringe, or the aspirator, both of which work on the plan before described. The rate at which the fluid is withdrawn must vary with the character of the fluid, and the condition in which the lung is supposed to be. If the collection is a purulent one, it had better be withdrawn through a quite large canula; since it will probably be necessary to insert a canula to be worn continuously for some time. If the effusion be serous, but the result of active inflammation, it should be drawn off through a very fine canula, so that the lung which is, in all probability, bound down by adhesions, may gradually expand and fill the space left by the fluid; for, if this be withdrawn too rapidly, there is such strong suction that it is difficult to prevent the entrance of air along the sides of the canula into the chest. In cases such as the present, where the effusion is the result of a passive dropsy, the lung is in all probability free to expand, and the fluid may safely be withdrawn, as I did it, with moderate rapidity and through a medium-sized canula.

There is no after-treatment required in such operations. The table of the pulse and temperature of this patient during the week immediately succeeding the tapping shows how little constitutional disturbance follows its performance. In the present case I surrounded the right thorax with strips of adhesive plaster, to prevent the ribs from expanding more freely and rapidly than the compressed lung could be inflated, and I certainly succeeded in securing the withdrawal of a large quantity of fluid and very free expansion of the lung without the production of any pneumothorax.

The tendency to a return of the effusion after paracentesis varies infinitely with the cause, the condition of the pleura, the constitution of the patient, and the mode of performance. I cannot, at this time, attempt to discuss the details of this point, particularly as our patient illustrates the fact that in not a few cases the urgency of the symptoms compels the performance of the operation without reference to the liability of the return of the effusion. Unfortunately, I cannot hope for a long respite from this result in the present case; but, even if the serum reaccumulate in the course of some weeks or months, the operation will have been successful in affording him marked temporary relief, and freedom from the danger of sudden and painful death.

Postscript, June 10.—Up to the present date, seventeen days after the operation, the same marked relief continues; the heart's action is slow (65 to 70) and more regular. The effusion has certainly increased, but only to a slight degree; and the patient is able to walk about quite freely, and has even left the hospital on a pass; though he is easily over-fatigued.

ORIGINAL COMMUNICATIONS.

ABSCESS OF THE LARYNX IN YOUNG CHILDREN.

BY JOHN S. PARRY, M.D.,

Attending Accoucheur to the Philadelphia Hospital, Vice-President of the Obstetrical Society of Philadelphia, etc.

THE term abscess of the larynx is used here, not because the writer believes it to be entirely appropriate to the condition which it is proposed to describe, but simply for the want of a better name. The disease to which it is applied is a rare one, and, so far as the writer is aware, the peculiar train of symptoms accompanying it have never been described, unless, indeed, it has been mistaken for retro-pharyngeal abscess. Two cases have come under my notice, one of which terminated in recovery, the other in death. Both occurred in the wards of the Philadelphia Hospital.

Case I.—John I., aged 4½ months, a negro, well nourished, and wet-nursed by his mother, who is a healthy woman. On my visit to the ward on Tuesday morning, she called attention to the child, stating that he had been irritable and cross for two or three days. He had not nursed well, though she did not observe any difficulty in swallowing. During the preceding day he had suffered from difficulty in breathing, with noisy inspiration, and total inability to swallow.

At the time of the examination he was lying upon his mother's lap, with his head thrown back. The muscles of the back of the neck were rigid. His eyes were prominent. Respiration was exceedingly laborious, and was attended with vigorous movements of the alæ nasi. Inspiration was long, difficult, and stridulous. During inspiration the base of the thorax was surrounded by a transverse constriction. This disappeared during expiration, which was easy and noiseless. The voice was almost whispering, and his cry almost suppressed. The dyspnœa was so great as to prevent any attempt at crying or moving. His whole object was to breathe. He had no cough. The larynx was thrust forward so as to form a decided tumor in the neck. The anterior margin of the thyroid cartilage was sharply defined. There was some swelling upon either side of the larynx, at the posterior margin of the thyroid cartilage. It did not fluctuate. The examination gave rise to pain and uneasiness, but did not increase the dyspnœa. The boy was totally unable to nurse or to swallow either fluids or soft solids.

The chest was resonant on percussion. No râles could be heard in any part of it. The respiratory murmur was scarcely audible.

His tongue was furred, and the mouth filled with mucus. A careful inspection of the pharynx revealed no disease, and an examination with the finger showed that there was not a retro-pharyngeal abscess. The epiglottis and parts around were examined with the finger and did not appear to be œdematous. This greatly increased the dyspnœa, and nearly cost the child his life.

The patient was carefully watched, with directions not to allow him to die without the operation of tracheotomy having been performed. Warm poultices were applied to the throat to favor suppuration, under the impression that there was an abscess behind the larynx.

During the succeeding two days his condition did not improve. The prominence of the larynx increased, while the swelling extended from behind forwards. At this time it was thought that there was slight fluctuation near the median line, over the thyroid cartilage. An incision was made from the superior to the inferior margin of this, directly in the median line, and nearly two fluidrachms of thick yellow pus flowed out. The larynx immediately receded, all swelling disappeared, the intense dyspnœa and dysphagia ceased at once. From that moment recovery commenced, and the boy did not have a single symptom of disease afterwards.

Case II.—J. G., aged 9 weeks, was born in the Philadelphia Hospital. Immediately after labor his mother suffered from puerperal fever. The child was healthy when born, but when less than a week old he was attacked with erysipelas of the buttocks, which gradually spread upward until the whole of the body and head were affected. This was followed by an abscess situated over the upper part of the occipital bone, near the posterior fontanelle. The contents of this were withdrawn by the aspirator twelve days before the present disease began, and again ten days before. The abscess immediately refilled, and it was opened with a knife three days ago. The erysipelas exhausted the child greatly, but during the last month he has been improving.

The present illness began suddenly ten days ago, with what the mother calls "wheezing in his throat." This was accompanied by some swelling about the larynx, and some noise in breathing. These symptoms continued until last evening, when the mother called Dr. Stone's attention to the child for the first time.

Present condition.—He is poorly nourished, but his general appearance is better than would be expected in an infant who had been so long and so seriously ill. His face is pale; the vessels of the neck and scalp are distended. He lies with his eyes half closed and his head thrown back, as in commencing opisthotonos. The muscles on the back of the neck are rigid and tense.

The alæ nasi move rapidly in breathing. The external muscles of respiration are called into use, those of the neck acting violently. The sternum is arched forward. During inspiration the convexity of this bone is increased, and a deep gutter appears around the base of the chest, on a line with the ensiform cartilage. During expiration this disappears, so that the thorax is actually larger during the expiratory than during the inspiratory act. The breathing is irregular, from forty to fifty times per minute. Inspiration is extremely difficult, is prolonged, and is attended with a sharp stridulous sound which can be heard all over the ward. Expiration is easy and noiseless. The child coughs but little. The sound is hoarse, broken, and tends to become whispering. The cry is nearly suppressed, but the aphonia is not quite complete.

The thorax is everywhere resonant on percussion, and auscultation reveals no evidences of disease of the lungs. The respiratory murmur is inaudible. The laryngeal sound is heard by transmission over the whole of the surface of the chest.

Physical examination of the pharynx reveals no tumor. The finger passes down behind the larynx. The epiglottis can be distinctly felt, and there seems to be a little puffiness upon either side of its base. The examination produced much uneasiness, and was followed by profound dyspnœa.

The larynx is thrust forward so as to produce a decided prominence on the anterior surface of the neck. There is some swelling just over the posterior margins of the thyroid cartilage. No fluctuation can be detected. The examination causes pain.

The tongue is furred, the mouth filled with dense opaque mucus, stomach irritable, and bowels constipated. He has considerable difficulty in swallowing, and cannot nurse at all.

The pulse is weak, irregular, and from 140 to 160 per minute. The irregularity occurs during inspiration.

He continued to grow worse during the succeeding night, and died the next day of dyspnœa.

Post-mortem.—The pharynx was perfectly healthy. The larynx was removed with the tongue and upper part of the trachea. The anterior aspect presented the following appearances: In the middle line and a short distance to either side, bounded by the inner border of the sterno-thyroid muscles, there was distinct fluctuation. Posteriorly to the outer margins of the same muscles, and upon either side, were other fluctuating swellings. The two projections communicated, and an impulse was transmitted from the surface of one to all the others.

The epiglottis was erect, thin, and pale. The cavity of the larynx was nearly obliterated; it contained no false membrane, and the mucous membrane was pale and healthy. Immediately without the epiglottis, between its base and the superior inner margin of the thyroid cartilage, were two fluctuating swellings, one upon either side. These compressed the epiglottis so that its lateral margins were nearly in contact and likewise nearly obliterated the rima glottidis. Fluctuation was communicated from these swellings to those on the sides and the centre of the anterior outer surface of the organ.

Upon making an incision in the median line, over the prominence of the thyroid cartilage, more than two drachms of thick yellow pus flowed out. The fluctuating prominences on the exterior and interior of the larynx immediately collapsed, and the cavity of the organ was restored to its natural size. A probe could be passed through the incision backwards, and around the posterior margins of the thyroid cartilage, upon either side, so as to put the mucous membrane of the interior of the larynx upon the stretch at any point.

The perichondrium was separated from the thyroid cartilage upon both its inner and outer surfaces. Both surfaces of the cartilage were eroded and rough, while its tissue was softer than it is when healthy. The cricoid cartilage was perfectly healthy. The other organs of the body were healthy.

These two are the only examples which I have met with of what must be a rare disease of the larynx in children. Only one author upon the diseases of children, whom I have consulted, has anything to say upon the subject. This is Vogel,* who speaks of "abscesses of the larynx" as a complication of typhoid fever in children. He states, however, that he has never met with an example of the disease. His description of the symptoms is very vague, and is not sufficient to warrant us in concluding that he alludes to the condition which has been described. Niemeyer† and Wood‡ speak of a somewhat similar condition under the name of "Laryngeal Perichondritis," but neither author details the symptoms with sufficient care to make the diagnosis easy. Porter§ has a chapter on "Abscesses around the Larynx," and Rühle‖ describes the condition in adults, but has nothing to say about abscess of the larynx in children.

In both of these children the symptoms were well marked, and could not but attract the notice of even a careless observer. The terrible dyspnœa, the distressed face, the dysphagia, the stridor, which could easily be heard over a large room, immediately attracted attention. It is not at all improbable that some of the cases recorded as post-pharyngeal abscess have really been abscess of the larynx. In certain particulars the symptoms of the two diseases are strikingly alike. In both there is dyspnœa with dysphagia, and, according to Fleming,¶ Allin,** West,†† Vogel,‡‡ and Smith,§§ there is retraction of the head. Relying upon the rational symptoms alone, retro-pharyngeal abscess would probably have been diagnosticated in both of the children whose histories have been related in this paper; but upon making a physical examination of the pharynx, no swelling could be detected in the locality in which this variety of abscess usually projects. This will at once enable the physician to distinguish between the two diseases, while the projection of the larynx anteriorly with induration at the posterior margin of the thyroid cartilage would direct attention to the larynx.

In both cases the symptoms resembled those of œdema of the larynx in adults. The physical examination likewise enabled us to exclude this; for the epiglottis could be felt, thin and healthy, below the root of the tongue. Besides, œdema glottidis is observed "almost exclusively among grown persons."‖‖‖ It is doubtful whether it can occur in children as young as these. Moreover, œdema is attended with violent paroxysms of suffocation, such as occur in croup and other laryngeal diseases. In both these children the intensity of the symptoms was steadily progressive from the commencement of the inflammation until the recovery of the one and the death of the other.

Pseudo-membranous laryngitis is another disease which the one we are discussing resembles. They have in common an insidious beginning, are both attended with great dyspnœa, stridulous breathing, and contraction of the base of the chest during inspiration. But in pseudo-membranous laryngitis the head is not thrown back, the dysphagia is absent, the larynx is not thrust forward, and there is no induration at the posterior margins of the thyroid cartilages. In both of the histories which have been related in this paper it is specially noted that expiration was not difficult, and was noiseless. Jacobi, of New York, in an able paper on croup¶¶ has called attention to the fact that in that disease both inspiration and expiration are impeded. Since our attention was directed to this as a diagnostic sign of pseudo-membranous laryngitis, we have not met with a single exception to the rule; and, unfortunately, the wards of the Philadelphia Hospital have furnished a number of opportunities to verify the diagnosis by a post-mortem examination.

Meigs and Pepper*** attach much importance to the depression or sulcus about the base of the chest in true croup. This is of no value whatever in dis-

* Diseases of Children, 8vo, N.Y., 1870, p. 186.
† Practice of Medicine, 8vo, N.Y., 1869, p. 49
‡ Practice of Medicine, 8vo, Phila., 1858, vol. i. p. 187.
§ Surg. Path. of the Larynx and Trachea, 8vo, London, 1837, p. 124.
‖ Kehlkoptkrankheiten, p. 162.

¶ *Dublin Quar. Jour. Med. Sci.*, Feb. 1850.
** *New York Jour. of Med.*, Nov. 1851.
†† Diseases of Children, 8vo, Phila., 1868, p. 472.
‡‡ Diseases of Children, 8vo, N.Y., 1870, p. 121.
§§ Diseases of Children, 8vo, Phila., 1869, p. 322.
‖‖‖ Niemeyer, Practice of Medicine, 8vo, N.Y., 1869, vol. i. p. 47; and Flint's Practice of Medicine, 8vo, Phila., 1866, p. 231.
¶¶ *American Journal of Obstetrics*, May, 1868, p 22.
*** Diseases of Children, 8vo, Philadelphia, 1870, p. 93.

tinguishing the disease which is being described from pseudo-membranous laryngitis. We have never seen the symptom more marked in fatal cases of that disease than it was in both of the children whose histories have been related.

In relation to the nature of the affection we have but little to say. Whether it commences as inflammation of the perichondrium or the sub-mucous cellular tissue is uncertain. It is hardly the latter, for the same reason that œdema of the glottis is rare in infants.

Treatment.—The prognosis of this disease of the larynx is evidently very serious, and to save the patient the treatment must be prompt and efficient. As soon as it is suspected, the child must be carefully watched. In the first case a free incision from the upper to the lower margin of the thyroid cartilage was followed by instantaneous relief and complete recovery. In the second the same result would probably have followed if we had boldly plunged the bistoury in. If the abscess can be opened in the median line, it should be done; and if not, the incision must be made upon a line with the posterior border of the thyroid cartilage, though it is true that in this locality some care has to be exercised, as the incision has to be made close to large vessels.

If this does not give relief, only one course is open,—that is, to perform tracheotomy, with the hope that the life of the patient may be prolonged until the pus is discharged. Any one who has seen a case of this kind can have no doubt in regard to the propriety of such a proceeding.

It is not difficult to conceive that this operation might be demanded in the latter stages of the disease and after pus had been discharged on account of the serious disease of the thyroid cartilage.

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TRANSLATIONS.

ON THE RADICAL CURE OF CERTAIN FORMS OF LACHRYMAL TUMOR BY MEANS OF PARTIAL EXCISION OF THE SAC, METHODICAL CATHETERIZATION, AND INJECTIONS OF THE SULPHITE OF SODA.

BY DR. MONOYER,

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Translated by Dr. H. Culbertson, of Zanesville, Ohio, from the *Archives Générales de Médecine*, January, 1873.

NOTWITHSTANDING the multiplicity of modes devised for the cure of lachrymal tumor, and the incontestable progress realized by Mr. Bowman, in 1857, in the surgical therapeutics of this form of ocular disease, lachrymal tumor continues none the less to discourage some practitioners, from the duration, and in many cases the inefficacy, of treatment. Only those who have kept their patients in view for a considerable time can say how many permanent cures they have obtained, and above all how many cures with re-establishment of the lachrymal passages; successes are still more rare when the cases are chronic and complicated.

Among complications there is one particularly rebellious to treatment: we refer to relaxation of the sac, with or without hypertrophy of its walls. Authors recommend, almost exclusively, compression to overcome dilatation of the sac; but I do not know that this mode has ever succeeded, at least when the anterior wall is considerably hypertrophied. We have been so fortunate as to obtain in two cases of this character, by the aid of a proceeding entirely different from that which has just been indicated, a double success, equally remarkable for the brevity of the treatment and for the perfection of the final result. Accordingly, we shall, we believe, be of service both to science and to the sick, by reporting in all their details the histories of the cases in question. We will follow our narrative with certain reflections adapted to make apparent the points which constitute the new part of the treatment employed under these circumstances.

Case I.—*Lachrymal tumor with dilatation and hypertrophy of the walls of the sac (hypertrophic dacryo-cystectasis); stricture at the inferior orifice of the nasal canal; partial excision of the sac; methodical catheterization by the incised superior lachrymal canal; injections of the sulphite of soda; rapid and radical cure, with re-establishment of the natural passages.*

Rosine B., born and living at Baccarat (Meurthe), aged 38 years; married; without occupation; of good constitution, and of nervous temperament; presented herself, February 4, 1867, at the ophthalmic clinic of the faculty of medicine of Strasbourg, to be cured of a lachrymal tumor.

History.—The patient has always enjoyed good health; she has been affected, since childhood, with lameness of the left leg; there is deformity of the hip of the same side. She menstruates regularly every three weeks, and has never borne children. Two years since she observed a tumor at the inner angle of the left eye; small at first, it has constantly increased in size. At first it was possible, by compressing it with the finger, to make it disappear entirely, even for several days, its liquid contents escaping by the nasal canal into the nasal fossæ; but for four months past it has been impossible thus to completely empty the tumor. Its development was preceded by epiphora.

The patient has been treated on various occasions. Dr. Mouginot, of Lunéville, gave her, one year since, by the inferior lachrymal punctum, and with an Anel's syringe, injections of tepid water, which the patient's husband, a glass-maker, learned to administer with great dexterity, and with which he persevered for some time, but without success. Injections of nitrate of silver, in aqueous solution, were no more efficacious, and had no other result than to induce inflammation of the tumor. An injection of Labarraque's solution, *undiluted*, made three months ago, under the advice of another practitioner, was also followed by intense inflammation, accompanied with acute pain. From this date the contained liquid which escaped from the tumor when it was compressed had a most fetid odor and taste, nor did injections of Labarraque's solution, diluted with water, which were subsequently employed, suffice to remove its offensive character; the epiphora continued incessantly. In the mean time the patient came to Strasbourg.

Present condition.—Immediately below the internal angle of the left eye, the skin, which is slightly red, is raised up by a tumor of the form and size of a medium-sized hazel-nut, and a little elongated. The tumor measures in its greatest length about one centimetre and a half, and its breadth is one centimetre; its great axis is not vertical, but follows the course of the lower border of the orbit. By pressing with the finger in a

direction from above downwards, it is possible to partially empty the sac, which is made evident by a very notable diminution in the tension of its walls; but the tumor does not entirely subside, and continues of the same apparent volume; the contents, which are made to flow out by pressure, escape by the nasal canal into the corresponding nostril, and thence into the pharynx, where, in consequence of their fetid character, they disagreeably affect the taste and smell of the patient. If, during these pressure-manœuvres, a drop of muco-pus sometimes flows backwards through the inferior lachrymal punctum, nothing whatever passes by the superior.

On touching with the index finger the tumor, previously emptied as much as possible, there is felt the sensation of a small body, having the form and consistency of a tarsal cartilage, beginning on a level with the entrance of the nasal canal and extending along the orbital border more than a centimetre; its thickness vertically is estimated at not less than two millimetres; its dimensions in an antero-posterior direction cannot be determined. This body seems to extend backwards, becoming gradually thinner, and to be attached to the osseous wall of the orbit; its mobility, however, is considerable.

Refilling now the lachrymal sac gradually, by the aid of an Anel's syringe, I continue to perceive the small body at the inferior part of the tumor, forming, so to speak, an integral part of the walls of the sac itself, until the excess of tension, the result of the too great accumulation of liquid (55 divisions of Pravaz's syringe could be injected), prevents the depression of the tumor, and thus hinders palpation. Anel's probe can be passed into the tumor through either lachrymal punctum, but cannot be made to penetrate more than two centimetres, at which depth there is felt a membraniform obstacle; by sounding in all directions the absence of caries is determined. The probe appeared to pass behind the little body we have described, which was composed of nothing more than the folds formed by the superior and inferior walls of the lachrymal sac, considerably hypertrophied and brought closely together by the pressure of the finger. If I lay great stress upon the sensation of a foreign body perceived in our patient, it is because, not being mentioned by any author, it might give rise to an error in diagnosis; for us, on the contrary, it indicates relaxation with hypertrophy, more or less marked, of the walls of the lachrymal sac, as we were able to determine during the operation.

On February 6, I made through the inferior punctum an injection of the sulphite of soda in solution, 1 to 200: from the following day, even, the secretion of the sac was entirely modified in respect to its plastic properties; it had lost its bad taste and fetid odor.

Treatment.—The choice of the treatment to be instituted in this particular case was very embarrassing. To adopt catheterization as performed by Bowman, or even with the aid of compression of the sac, was to undertake a mode of practice the issue of which seemed very doubtful, and which would require the patient to remain a long time at Strasbourg; to proceed to the obliteration of the sac was to have recourse at once to an operation which, in our opinion, should be reserved as a last resource, to be employed in despair when other means have failed. We decided to attempt a new method, and to excise a portion of the hypertrophied sac.

The 8th of February having been fixed for the operation, it was performed in the presence of our colleague and friend Dr. Munch.

The patient having been profoundly chloroformed, I incised with a small bistoury the skin which covered the tumor, to the extent of two centimetres and a half; the incision, commencing at the superior extremity of the tumor and immediately below the tendon of the orbicularis, was directed from above downwards and within outwards, following thus in a straight line the direction of the great axis of the tumor, and nearly also that of the muscular fibres of the orbicularis muscle.

The external integument having been divided, I separated with the point of the bistoury the fibres of the orbicularis, and came directly upon the sac; I dissected the tumor carefully on each side of the incision, at all points accessible to my instruments; the anterior wall was thus exposed below, as well as inwards as far as the orbital border, and above to a corresponding depth.

To facilitate this first part of the operation, I had previously injected water into the lachrymal sac, so as to distend it to the utmost; I had, moreover, introduced Anel's probe through the superior punctum. The sac having been cleared, I incised the anterior wall in its entire length, and in a direction parallel to the external incision; by the opening thus formed, there escaped a large quantity of thickened ropy mucus, intermingled with a little thin pus.

The walls of the sac were on their internal surface of a well marked slate-colored hue, and were considerably thickened.

Catheterization practised through the wound, with Bowman's probe No. 2, showed that the nasal canal was pervious in its entire length, except at its lower part, where there was a contraction of the membranous orifice, which, however, was easily overcome.

With scissors curved upon the flat, a part of the sac was now excised: two slips, nearly three millimetres wide in their middle portion and narrowed at their extremities, were thus removed from the sides of the incision. The bleeding, which was quite free during the operation, yielded quickly to sponging with cold water.

The interior of the sac and of the lachrymal passages was carefully cleansed by means of the solution of sulphite of soda, injected with Anel's syringe armed with a large-sized canula; then the wound was closed by means of three sutures, including upon each side the skin and walls of the sac. Lastly, the superior lachrymal canal was incised with a Weber's knife, to facilitate future catheterization. Cold applications were applied to the wound.

[The wound after uniting opened, but subsequently healed under the influence of injections of the sulphite of soda. The nasal duct was kept pervious by catheterization. On the eighteenth day the patient left the hospital with the wound completely healed. The husband of the patient injected the solution and catheterized the nasal duct at intervals for some time after she was discharged.—TRANSLATOR.]

March 21, 1867, I presented my patient to the Medical Society of Strasbourg. The report of the *séance*, after having given a résumé of the case, adds, "The members of the Society verify the absence of all deformity; the small cicatrix resulting from the operation is scarcely visible."*

[October 20, 1871, the patient was heard from by letter, and, as the disease had not returned, the cure remained complete.—It is unnecessary to give the particulars in the second case of the operator, which was equally successful in its results with that just narrated. —TRANSLATOR.]

Remarks.—One fact strikes us at once in the above cases,—viz., the rapid recovery. In the first case eighteen days sufficed to obtain a radical and permanent cure, and *with re-establishment of the natural passages*, of a lachrymal tumor of at least two years'

* *Gaz. Méd. de Strasbourg*, April 25, 1867, No. 8, p. 103.

standing and complicated with hypertrophic dilatation of the sac; in the second case the same result may be considered as having been obtained also in eighteen days, for the subsequent injections, which were continued a week longer, served only as an additional measure of precaution.

In regard to the operation to which we owe the above-narrated successes, it offers two interesting peculiarities to which we must direct attention: — 1st. As to the operative procedure, *we excised a part of the sac* which was notably thickened by hypertrophy of its connective tissue and epithelium; we thus succeeded in diminishing the volume and dimensions of the sac better and much more rapidly than could have been done by compression. 2d. In regard to the consecutive treatment, we had recourse to *injections of sulphite of soda*, which have the double advantage of stimulating the vitality of the tissues and of removing instantaneously the fetid odor of the matter secreted by the mucous membrane of the sac.

Partial excision of the sac is not absolutely a new operation; it has, however, very seldom been tried with the view of overcoming the dilatation of the sac.

Von Ammon is the only author, to our knowledge, who has published two cases *of cure of dilatation of the lachrymal sac* (dacryo-cystectasis of Hasner) *by the removal of a flap of its anterior wall.* These two cases are published in an article entitled "Ophthalmological Sketches," which appeared in 1851,* and which has been translated by M. Bénard, in the *Annales d'Oculistique* for 1852, vol. xxvii. We derive from the last-named work the account of the cases in question. [It is not thought necessary to give the details of these cases.—Translator.]

Von Ammon performed these operations with the object, he said, of diminishing the cavity of the lachrymal sac, and of thereby increasing its contractility; by removing the anterior wall at the point where the mucous membrane formed folds, he moreover desired to prevent, or at least to diminish, the secretion of the morbid material which accumulated in the sac, by inducing, through the irritation caused by the introduction of suture-pins, a modification of the diseased mucous membrane."

For our part, we believe the Dresden ophthalmologist was right; but when he published his observations in 1851 he had changed his opinions upon this matter, adopting the ideas advanced the previous year by M. de Hasner in a work upon the "Physiology and Pathology of the Lachrymal Apparatus:"† he believes with the Prague professor that in *dacryo-cystectasis* or *mucocele* there was always found a partial obliteration of the calibre of the nasal canal, and that dilatation of the sac could only be made to disappear by rendering general the adhesion which was previously but partial. Von Ammon therefore considered it very probable that he owed his two successes to the complete or at least very general adhesion of the membrane lining the lachrymal sac,—adhesion due to the twisted suture of Dieffenbach, employed by him in his operations.

As the Dresden surgeon did not seek in any way to assure himself whether under these circumstances the natural outlets for the tears did or did not preserve their permeability, and as on the other hand partial excision of the sac was not followed by any treatment suited to prevent contraction of the nasal canal, it is difficult to determine in what manner the recovery was obtained,—whether the natural passages were re-established, or whether they were entirely obliterated.

Nevertheless, we should be strongly disposed to see in the first case related by Von Ammon a recovery with re-establishment of the natural passages, while, on the contrary, the second operation appears to have ended in occlusion of the sac: such at least is the impression we have from the account of the phenomena following the operation.

Mr. Critchett, in his "Lectures upon the Diseases of the Lachrymal Apparatus," says, in speaking of the treatment of lachrymal tumors where the sac is augmented in volume at the same time that its walls are hypertrophied, "Once or twice Mr. Bowman has found it well to remove, by dissection, the anterior wall of the sac: there is no objection to be made to this procedure save its tediousness and difficulty."‡

Our own observations, as well as those published by Von Ammon, are such as to show how little foundation there is for the objection advanced by Mr. Critchett against partial excision of the sac; this operation in reality presents nothing particularly tedious or difficult to execute.

To sum up, two cases published by Von Ammon, and one or two mentioned by Critchett as belonging to Bowman,—such is the list of partial excisions of the sac found in the annals of science previous to our own operations.

If we consult classical authors, we find that almost all are silent as to this operation; M. de Wecker, at most, merely mentions it in the second edition of his "Treatise on Diseases of the Eyes," vol. i. p. 896 (1868), to express his preference for compression aided by injections.

Mr. Critchett, after having recalled that Bowman had had recourse, once or twice, to partial excision of the sac, adds, "I have instead sometimes opened the sac freely, and applied to its interior the potassa cum calce, so as to destroy a considerable portion without injuring the skin."§

M. Warlomont, in the "Dictionnaire Encyclopédique des Sciences Médicales," says (in the article entitled "Surgical Pathology of the Lachrymal Passages"), in speaking of the treatment of *mucocele*, "If the sac be very much distended, *we may*, after having opened it, remove a portion with scissors."‖

It seems to us superfluous to remark that partial excision of the sac should not constitute a general procedure applicable to all forms of lachrymal tumor. The number of cases in which this mode of treatment can and should be practised is indeed so limited that in a period of five years we have had recourse to it but twice. In the course of the year 1871, we thought for a moment that we had to do with a case which would justify the operation of which we speak: there was a lachrymal tumor with relaxation and thickening of the walls of the sac and a diverticulum upon the orbital plate, but, the sac being opened, we perceived the mucous membrane covered with numerous granulations: this annoying complication, which we had not been able to foresee, rendered it evident that all efforts to re-establish the natural passages would fail; we did not hesitate to proceed at once to the obliteration of the sac by cauterization with pencils of Canquoin's paste. Partial excision of the sac, we believe, is not indicated, except in simple or hypertrophic *mucocele*, and especially in the latter any complication such as caries of the bony parts, or an incurable affection of the mucous membrane (for example, granulations), constitutes an insurmountable obstacle to the re-establishment of the natural passages, and calls for other treatment.

Let us also add that excision will not, in general, suffice in itself to cure a lachrymal tumor, and that it seems to us necessary to follow this operation by methodical cathe-

* Von Ammon, Ophthalmologischen Skizzen (*Deutsche Klinik*, 1851, No. 45; translated in *Annales d'Oculistique*, 1852, xxvii. p. 26).

† Von Hasner, Beiträge zur Physiologie und Pathologie des Thränenableitungsapparat, Prague, 1850.

‡ *Annales d'Oculistique*, 1861, tom. li. p. 214.

§ Loc. cit., p. 214.

‖ Dict. Encyclop. des Sciences Médicales, 2d sér., t. i. p. 59, 1868.

terization and by injections of the *sulphite of soda*. It is the union of these three therapeutic remedies which has procured for us the successes related above, and which constitutes the novelty of our mode of treatment. One word, finally, upon the use of the *sulphite of soda* in ocular therapeutics. This medicine acts at once as a disinfectant, an antiseptic, and as an alterative to the tissues, the vitality of which it arouses. The case which we reported in the beginning of this article demonstrates the utility of sulphite of soda injections in checking the morbid hypersecretion of the mucous membrane of the lachrymal sac, in modifying its nature, and in instantaneously removing from it all nauseating odor.

These same injections may be advantageously substituted for astringent injections in the treatment of different affections of the lachrymal passages. The solution of sulphite of soda, applied with a brush to the palpebral conjunctiva, has also rendered us good service in the treatment of *trachoma*.

In employing this as a topical remedy, we gradually increase the strength of the solution; as 1 gramme to 200 of distilled water, 1 to 100, 1 to 50, and even 1 to 30.

The conjunctiva painted with the solution 1 to 30 bleeds readily, if the application of the remedy be at all prolonged.

In other forms of disease than ophthalmic, the sulphite of soda, in solution or in ointment, also gives excellent results whenever it is necessary to excite the vitality of the tissues threatened with mortification, as in carbuncle, wounds of an unhealthy character, atonic ulcers, etc.

Treatment of Pernicious Malarial Fever.—In the *Southern Medical Record* for May, 1873, Dr. Benj. Rhett, of South Carolina, has a paper upon Congestive Malarial Fever, in which he says, "In most cases of fever, intermittent or remittent, twenty grains of quinia, administered during the intermission or remission, are sufficient to arrest the next paroxysm. But the same quantity, twenty grains, administered during a paroxysm, has no control over that paroxysm, either during the cold or hot stage, but exercises its influence, if it has any effect at all, on the succeeding paroxysm. Indeed, the febrile symptoms are aggravated by giving quinia during the paroxysm.

"Suppose, now, we administer during the paroxysm, either during the cold or hot stage: ℞ Morphia, gr. ¼; chloroform, teaspoonful; camphor, gr. ii, and repeat if necessary—the effect of the remedy is not only to *abort the chill*, but to *shorten the febrile paroxysm* by several hours. The same remedy administered previous to the hour of chill will sometimes postpone the attack several hours, and sometimes prevent it altogether."

He also reports several cases, of one of which he writes as follows:

"I arrived about five o'clock in the afternoon, and found him in the following condition: His surface pale, with cool extremities and cold nose; features pinched, and finger-nails blue; the pupils of his eyes contracted to the size of a pin's head, and little sensible to variations of light. Soon the surface grew warmer, but the face, especially the nose and lips, became purple with venous congestion; the surface was soon bathed in profuse perspiration; the skin of the hands and feet became shrivelled, the nails being of a purple color,—the semi-comatose condition continuing. His breathing was embarrassed and stertorous, and there was considerable difficulty in swallowing. When partially roused to take medicine, his face had a wild, stupid glare, and he would relapse again into stupor with the spoon in his mouth. Having neither chloroform nor camphor with me, I administered one-fourth of a grain of morphia and twenty drops of turpentine every hour, plunged his feet into warm water, placed sinapisms upon legs, thighs, and arms, and hot flannels, with turpentine, around the abdomen, and gave turpentine enemata. When chloroform and camphor were obtained, he took, every two hours—morphia, gr. ¼; chloroform, teaspoonful; camphor, gr. ii. This treatment was persevered in from five o'clock in the afternoon of the 13th of July to seven o'clock A.M. of the 14th, when there was a return to consciousness,—a subsidence of stupor. A flow of urine, which had been suppressed, took place, and a subsidence of fever occurred. Quinia was given in full doses, and the patient soon rallied."

How to Test Milk.—To prove the properties of milk, certain tests are useful. Those of Vogel are explicit and concise, viz.:

1. Fill a graduated galactometer with milk, let it stand covered for twenty-four hours, then the cream should at least comprise three lines of the glass in thickness.
2. Test with blue and yellow paper.
3. Taste, which should be insipid and slightly sweet.
4. The microscope.

"If nurse has been confined more than eight days, colostrum corpuscles and epithelial cells should not be present at all, or in small quantities, milk-globules of unequal size or too many." "In pure milk," says M. Donne, "nothing but milk-globules are seen." The same writer also shows human milk to be alkaline. I have not been able to find any reported case of acidity in human milk.

Unhealthy milk may be inferred from its scarcity of cream, change in color and taste, generally slight, but principally from microscopic examinations.

In 1853 Vogel first discovered vibriones in human milk. There was no fermentation, as the milk was alkaline. The child had all the appearances produced by malnutrition. From 1854 to 1861, Dr. Gibb, in an examination of many hundred specimens, found two genera of animalcula in the milk of women in whom the general health was disordered during lactation, or in whom lactation was prolonged or an insufficient quantity of milk secreted. He also found, in all periods of lactation, milk varying in color, sp. gr. 1024 to 1035, and almost invariably neutral or alkaline. The children, as a rule, were badly nourished. The doctor believes that the vibriones themselves are not hurtful, but produce a bad change in the milk. Inflammatory globules have been found by Lehman and others, when there was any acute affection in the mother. Vernois and Becquerel found "an excess of butter or caseine always to accompany an ill state of the nursling."—*Walker: The Sanitarian.*

The *German Pharmacopœia* gives an excellent test for the genuineness of raspberry syrup. If one volume of the latter be mixed with half a volume of pure nitric acid (25 per cent.), the fine red color of the syrup must not change to yellow, otherwise the syrup owes its color to some dyestuff which has nothing to do with raspberry fruits. A syrup which contains only a small quantity of artificial coloring-matter remained twenty-four hours unchanged, and only after this time showed a yellow color; while genuine syrup, when treated with nitric acid, even after three days' standing, showed no change of color. It is indispensable that the experimenter should be very careful as to the measurement of the volumes. Dr. Hager states, besides, that syrup colored with aniline becomes colorless when treated in this manner with nitric acid.—*Chemist and Druggist.*

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The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

PHILADELPHIA HOSPITAL.

A MOST extraordinary discussion occurred a few weeks ago at the meeting of the Social Science Association of this city, which, as it concerns our largest hospital, is of interest to the profession. The occasion was the reading of a paper by a member of the governing board of the Philadelphia Almshouse, in which he demonstrated or asserted the existence, at that institution, of a state of affairs which is simply shocking.

The insane department he described as a vast hostel, in whose wards and corridors the insane are herded together,—the gay and melancholy, the timid and violent, the quiet and noisy,—until from the intermingling of such elements arise a constant noise, excitement, quarrelling, and collision, utterly preventive of recovery or comfort. Moreover, shut up at night by themselves, three in a room six by ten feet, these unfortunate victims of Philadelphia philanthropy are left to prey upon one another, so that, with Dr. Ray, we wonder that "homicide does not occur every night in the year:" in truth, twice within the last few months it has been prevented by the merest accident. Surely we have need of a John Howard among us, if indeed the venerable author of the paper in question be not such a one. We do not propose to devote much space to the consideration of the insane department of the Philadelphia Almshouse. According to the showing of Dr. Isaac Ray, it is but a lazar-house,—a place of confinement, where the city of Philadelphia, too careless, or too penurious, to properly provide for and take medical care of its insane poor, condemns them to perpetual imprisonment. This is the picture that a man who is at once one of the governing board of the institution, and the highest authority in America upon insanity, draws of its corridors. He says, "There can be few more pitiable spectacles than that witnessed there every day, of hundreds of men overcharged with nervous excitement, whose restless movements are confined to the limits of a narrow hall, and of as many more, silent and depressed, crouching down in corners and by-places,—all of them worrying one another, and speedily losing from sheer inaction whatever of mind their disease may have left. To continue this crowding together of the insane, as is still done at Blockley, is simply to perpetrate a great crime against humanity. To ignore the fact and to be reckless of the consequences, is no better, in point of morals, than it would be for a railway company to use a bridge after it had been pronounced defective and dangerous."

The organization of the Philadelphia Almshouse is a simple one. A chief or steward rules absolutely, under the board of guardians, over the whole institution, which is divided into a number of departments, of which the hospital constitutes one, and the insane asylum another. The hospital is under no general government except that of the Hospital Committee and of the steward. The Hospital Committee, composed of men engaged in active business and living miles away from the institution, does all that can be expected of such a body; which, so far as the discipline and daily running of the hospital are concerned, is simply nothing. Auditing accounts, appointing nurses, listening to grievances, and similar general duties, fully occupy the two or three hours of their weekly meeting. The steward has so many duties to attend to in superintending the whole almshouse, that it seems impossible for him to pay especial attention to any one department; and in the past we know that he has very rarely visited the hospital, and has exercised no personal supervision over its daily life.

The astounding fact is but too apparent, that to a hospital of nearly one thousand beds there is no head. Seven or eight nurses, men worth only thirty dollars a month, ruling their wards as best becomes their sense of dignity and right; twelve resident physicians gathered annually from the city and country, and, as a matter of course, some of them men of great ability, some of them men of great stupidity, all of them fresh with the exceeding freshness of

newly-fledged American graduates, generation after generation of them living in open customary violation of the printed rules of the house; nurses and resident physicians *nominally* responsible to twelve visiting physicians who are required to visit the wards only three times a week and are therefore only in truth consultants, *practically* responsible to no one but their own wayward fancies:—such, reader, are the real daily governors of the Philadelphia Hospital. Is it a wonder that one of the guardians of the poor publicly charged and apparently demonstrated that, during the last fever epidemic, men entering the hospital were lost as the wanderer is lost in the vortex of London, no trace remaining, no sign upon the books to tell whether they had died or lived? Is it a wonder that discipline is so loose, if indeed it exist at all?

Who is to blame for this state of affairs? Evidently, no one. Like Topsy, "it has growed." Like some monster, the institution has suffered from arrest of development, while it has continued to expand in bulk. If the responsibility rests anywhere, it is with the Philadelphia medical press, which has failed to raise its voice upon the subject. The evils which have been alluded to are but a fraction of what exist; and we propose, in the next few weeks, to examine closely the Hospital Department, its organization, its executive management, and see how nearly it approximates to the standard that is demanded by modern civilization and charity.

ETHER VERSUS CHLOROFORM.

IN a recent clinical lecture in the *British Medical Journal*, Dr. Jonathan Hutchinson writes decidedly in favor of the use of ether as an anæsthetic in ordinary cases. He, however, claims that in old people chloroform is the safer, and details a case of coma continuing for hours, and finally proving fatal, in a gentleman eighty-four years of age, to whom he had administered ether. As the kidneys were found at the autopsy in an advanced condition of granular degeneration, the question arises, Was not the coma really of uræmic origin? and when it is noted that death did not occur for forty hours after the suspension of the ether, which was only inhaled for twenty minutes, and that there were during this time repeated convulsive paroxysms and twitchings of various muscles, the natural answer to the question seems to us—Yes. It is quite refreshing to see the light of our American science breaking through the prejudices of the English profession; but we think Dr. Hutchinson's preference for chloroform over ether in old persons has no better foundation than had the complete condemnation of the latter anæsthetic so universal in Great Britain a year or so since.

THERE has recently appeared in Paris a curious book,—a veritable encyclopædia of an art most interesting to lovers of hygiene. It is a posthumous Gastronomic Dictionary, by Alexandre Dumas, in which the recipes are piled up from A to Z, and interlarded with amusing anecdotes told in a manner worthy of a Gascon. In it the inquiring mind may find recipes for all things to be cooked, from a swallow's nest to escargots, from beefsteaks to elephants' feet. If it were possible by means of any dictionary to recover upon this continent the lost art of cookery, we should earnestly pray for a translator. What philanthropist will furnish copies to our hospitals?

WE have felt exceedingly honored by the promptness with which our learned cotemporary the *Journal of Materia Medica* copied the article on digitalis in one of our late issues. While, however, we admire the enterprise of the aforesaid journal, an acknowledgment by it of the source from which the article was obtained would have been more in accordance with our taste. *De gustibus non est disputandum.*

WE desire to correct a slight error in our report of the Proceedings of the American Medical Association. The name of the third vice-president elected should read Dr. N. C. Husted, of New York City, instead of W. C. Husted, of Missouri.

CORRESPONDENCE.

May 29, 1873.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—The leading article, on *Life Insurance*, in the *Philadelphia Medical Times* of May 17, had escaped my attention until the remark was made to me, "That was a good article of yours in last week's *Medical Times*." The article does not strike me as a very good one. It is, certainly, not such an article as I wish to have attributed to me, either for my own credit with a single reader, or for the influence which my supposed opinion may have with any one.

I do not pretend to find fault with the language or spirit of the article; and of course take pleasure in according with all that is said in regard to the importance of having competent and well-paid medical officers, and as to the care with which examinations and inquiries should be made, etc., etc. There is nothing new, or peculiar, or which is not familiar to every good

life-insurance examiner and manager, in all that is said in regard to the independence, honesty, and technical qualifications which are so much needed, in both classes of officers, for the proper conduct of the business. Unfortunately, there is nothing new, either, in the other views expressed, since we read them in the newspapers, meet them more or less in the courts, and hear them too often announced in ordinary conversation. But the prevalence of these one-sided notions, and confusion of ideas, is the reason that induces me, as it might any old life-insurance examiner and adviser, to repudiate and protest against them.

I have neither time nor inclination to discuss the general question, or the many and various particular questions, involved in the study of life-insurance examinations—especially in their business and legal aspects. Nor am I much disposed to dwell upon the provoking muddle in which the writer of your leading article has involved his topic by his inconsequent propositions and assumptions. I must, however, express an absence of faith in his doctrine of unconditional liability. I cannot see how it facilitates a practical approach to what he calls the "selection of the fittest," or affords the slightest tenable reason why swindling in life-insurance contracts ought to be more free and successful than false pretence action in any other bona fide business operation, or how so blind a rule of conduct can do anything but harm to the general interests concerned. I do not believe in his assertion as to the peculiar nature of the bargain which renders this kind of contract unlike all others in the risk which it assumes against the insurer and in behalf of the insured; so that "when once a risk is underwritten the responsibility is assumed, and there is no escape."

The last word is the key, I fear, to the whole paper. Just a whisper of the popular hue and cry! "No escape"—from what? No respectable office wants or tries to "escape" from an ordinary loss. Such losses form a necessary and perfectly natural part of the habitual experience. Every respectable office wants and tries to "escape" from *fraud* in the making of its contracts; and equally wants, but rarely tries, to "escape" from the *consequences of fraud*, in the fulfilment of its contracts. The obligation to resist intentional deception, at all times, is as strong on the part of the company as it is on that of the claimant; but the effort to escape in case of fraud is rarely made by companies, simply because the disposition is always to give the benefit of the doubt, as to the fact of fraud, to the beneficiaries of the policy; and because the effort to escape often fails and too often threatens to cost as much as the policy itself. "Examiner and applicant are alike human," as our friend has it; both have been mistaken, only,—neither deceived or deceiving,—and so the company pockets the loss from the rogues for the sake of peace and good will among honest men; and, especially in mutual offices, at the expense of honest men. The treasury is to be robbed by the successful cheat, not because of his cheating, but because the examiner has failed to prevent him from cheating.

No well-regulated insurance office will admit that "there are but two subjects of inquiry before the payment of a loss,—the *identity* and the *death*." They all know very well that no such absurdity would keep a company together long enough to make many, even of these sometimes difficult subjects of inquiry, possible.* There is quite as much reason for "holding," in a question between a horse-jockey and his victim as to compensation for a horse, that description and guarantee are nothing,—"the only subjects of inquiry" being the identity of the horse and the transfer of the horse. He might be a runaway, hopelessly unsound, or radically vicious. You have bought him on conditions and under certain representations; but, having once "accepted" him, you are bound to pay for him, whether dead or alive, or kicking. The average horse is good and safe and young enough; and you were therefore bound to ascertain, without regard to warrants and descriptions, that he was *not* an average horse before you took him. No one doubts the force of obligation in this lower order of bargaining. Why should there be any less in the higher and more sacred aims and objects of a life-insurance negotiation? The difference is manifestly in the vastly greater importance of care and honesty in attention to the preliminary steps of both parties to the agreement—which is fully recognized by life-insurance companies; and of a strict adherence to terms—which is often waived by the companies in favor of the insured before death, and of the beneficiaries after death.

If the applicants for life-insurance were obliged to register their inherited and other infirmities, diseases, and known liabilities to disease from any cause, as mortgages are registered in the deed-recorder's office, we might, perhaps, substitute searches and briefs of title for written answers to the standing questions; and might, with some greater show of reason, be held—without regard to conditional *history*—as tightly to the consequences as the mortgagor or purchaser of landed property.

But men and women are not so easily surveyed and described, and judged of, as lands, or even houses, or so easily watched, even for the superficial view alone obtainable; nor can their years be told by their teeth so nearly as age is in the horse. Being without these material resources; being, in fact, only mortal in our lack of "perfection and prescience," we naturally fall back upon the practical and inalienable method of dealing with human beings which has governed the world in its business intercourse since the days of Jacob, if not those of Adam. This is what common sense demands, and what our courts require, as the only safeguard for all parties to a bargain.

Life-insurance may be "founded upon absolute certainty, in the death of *all* the assured," but the certainty is in the fact that the "death of all the assured" *cannot possibly occur at any one time*. This difference in

* The West case, in Dover, Delaware, and the Goss case, in Baltimore, Maryland, are the latest illustrations of this difficulty as to identity and death.

time must depend, in the vast majority of cases, upon the varying circumstances of these separate cases. These circumstances, the average influence of which has been long established by indisputable authority, can never be fairly known and judged of without the statements and testimonials of the applicant and his recommenders; and, hence, such stipulated data must be truthful, and so required and agreed to, as the only sure basis of insurance.

It is the well-recognized duty of the medical examiner of the applicant for insurance, and of the medical adviser who has the determination of the risk, to elicit as full and fair an account of the true tendencies and condition, inherited and acquired, of said applicant, as may be practicable; and to advise or object to the acceptance of the risk in accordance with the information thus obtained. They must do this with the clear understanding that nothing but palpable misrepresentation can vitiate that basis of acceptance, and that no forfeiture can follow except through violation of express terms in the policy with which the examiner and adviser have nothing to do. But the necessity for good faith on the part of the applicant under any kind of personal inquiry on the part of the examiner, and in keeping his engagements, is at least as absolute as the obligation to good faith on the part of the company in maintaining the insurance.

The proper physical examination of the applicant is of great importance, certainly,—a *sine qua non*, of course. But can that examination be conclusive without a previous history? Can the history be complete without a family record? Who is to give the history, personal and family, but the applicant and his medical, or other, sponsor, whom he is required to call upon to testify to the previous circumstances—which are necessarily beyond the personal ken of the examiner? And how are these things to be done except through questions and answers, written and oral? The list of printed questions must, of course, seem strangely, absurdly, long and complicated to an inexperienced reader. No well-trained life-insurance examiner need be told that they must be so, in order to include the great variety of cases, incidents, and contingencies; that they are based, not upon theory, but upon long practical experience with the work of investigation, and with its peculiar requirements and difficulties, in the true interests of all rightful parties in the matter.

Shall we then allow so much laborious and painfully minute inquiry after bona fide data—for experience no less than for protection—to be set at naught by a thoughtless prejudice which, whether intentionally or not, could only aid the rogues and mislead the honest men? Must we quietly submit to the assumption that the object and results of all this care must be regarded as little more than pretence and form—surplusage, if not trickery, as to any practical purpose? There is no answer to this view of the argument in the claims of the beneficiaries. Nor is there any in the circumlocution about the waiting for better information and for other proper modes of dealing with the doubtful cases, the selection of officers to "protect the assurers and the assured," and such other truisms and commonplaces, with which your contributor would reconcile his readers to the Utopian idea of absolute security—upon the claimant's side. The greatest care and skill, and the most disinterested and deliberate judgment,—the highest qualifications, in short,—were they obtainable in every case, would have a poor chance, on one side, against dishonesty on the other.

One of the difficulties in collecting information, even for experience purposes, is well illustrated by the writer's remark in regard to a very natural inquiry as to the character of a vaccination in the case of an insured person who had died of smallpox, that it looked "very much like an attempt at quibbling, not at all compatible with the dignity of a great company." So, as to the view that "some" of the questions "which are sent to physicians to answer," in relation to the decease of a policy-holder, "indicate a disposition on the part of the companies to get rid, if possible, of their obligations." This I deny positively as to the company which has been at least twenty-six years under my observation, and I doubt it greatly as to others. The ruling desire is, carefully to avoid the indication of a disposition which there is very little reason to charge them with, notwithstanding newspaper assertions to the contrary. I do not mean to defend the want of courtesy, the rather inquisitorial style, the not very convenient arrangement, and the inexplicit language of these post-mortem interrogatories; such as I have thus far seen at least, savoring, as they do, too much of magisterial dictation; and, while acknowledging no responsibility for these defects, I believe them to be unintentional, and have good reason to hope for improvement in the future.

One thing is very evident in this matter of medical certificates. They should be well paid for when they are good for anything. As they are often very important, however defective, it is probably the best policy to pay well for them, whether good or bad. Being required by the company, they must be procured as legal papers, *by and through* the parties interested in the policies; but it will always be to the interest of a company to bear the expense of a decent fee for such a certificate—as for every kind of medical certificate—not for the purpose of litigation, which is rarely desirable or thought of, or for any merely detective purpose, which is not respectable; but for the vastly more important uses of the experience record.

These questions of life-insurance settlement, however, are not within the jurisdiction of the medical examiner. They are questions of law and equity, to be settled by the courts of justice. But no member of the medical profession should undertake the duty of an adviser in such matters without a clear idea of his whole responsibility as an expert, and of his liability as a witness, in giving his professional estimate of the importance of the scientific data on which the insurers and insured may have agreed to act.

Very respectfully,

EDWARD HARTSHORNE.

PROCEEDINGS OF SOCIETIES.

PROCEEDINGS OF THE OBSTETRICAL SOCIETY.

THURSDAY, JUNE 5, 1873.

SOCIETY convened at a quarter after eight o'clock P.M.

The minutes of the previous meeting were read, and, without remark, stood approved.

Dr. RICHARD THOMAS was then introduced as a new member to the Society.

Two specimens of *hydrops fallopii* were shown by the Secretary, Dr. INGHAM. They were without available history, and in his brief comments he stated that he showed them not so much as rare or uncommon specimens, as to illustrate their dissimilarity. In one, the cyst was entirely free from any signs of surrounding inflammation, while the other was bound down to the walls of the uterus by perimetritic inflammation. The points suggested as presenting interest were: could they have been diagnosed by the introduction of the fingers into the rectum, and, if recognized, whether puncture should have been made for relief.

He also presented a third specimen of a large *fibroid tumor* (size of a large orange) *of the uterus*, seated upon its posterior wall, with two small ones within the walls. No history of the case was offered. The patient died of an intercurrent disease, and without the tumors being recognized.

Dr. JENKS alluded to the great difficulty in diagnosing fibroid and other growths when situated upon the posterior wall of the uterus, even since the discovery by Dr. Simon, of Heidelberg, that the rectum may readily be dilated to admit the whole hand.*

Dr. GOODELL called attention to Hildebrand's treatment of fibroid tumors by hypodermic injections of a solution of ergotine in glycerine. He knew personally of one case in which the tumor was materially reduced in size; another under the care of Dr. Barker, of New York, in which it disappeared entirely; another reported by Dr. Ashhurst diminished one-third in so short a time as three or four weeks. It is not very liable to produce abscesses at the point of injection, though these do sometimes follow. One objection is the intense pain which is produced, amounting in some cases to agony, and requiring drugs for its relief. Dr. Barker also recommends the administration of ergot by enemata and suppositories.

Dr. LUDLOW spoke of a case under his care, where an operation was meditated, but the tumor of late has been diminishing in size, under ergot internally; and of another case of a lady, who was seen by Dr. Hodge, where the tumor disappeared for five years and then returned.

Dr. JENKS stated, for the advantage of those who desired to experiment with the article, that a preparation has been made by Dr. Squibbs especially for hypodermic use, and is reliable.

Dr. GOODELL remarked that, as discoloration is sometimes produced at the point of injection, and is very slow in disappearing, a position should be selected which would not show. Dr. Hildebrand employed a point about the umbilicus.

Dr. LUDLOW objected to this locality, suggesting that peritonitis might result from a deep-seated abscess in this position, and proposed the gluteal region.

Dr. SMITH proposed injecting into the body of the tumor.

Dr. GOODELL stated "that as the theory on which it acts is reducing the nutrition of the tumor through the sympathetic system, no advantage is to be expected from injections into the growth itself."

A unique specimen of *twin embryo* was exhibited, having been forwarded to the Society by Dr. A. S. GERHARD, but without history accompanying.

Dr. SMITH said he had been informed by the doctor that the lady had had several miscarriages previously, and had been regular for months, the last menstrual flow having been very free and lasting several days.

She had passed the time for the next period, five days, when he was called and found an unusually excessive hemorrhage, coming on after some extra exertion on her part, her health having been previously good. On examination he found the cervix hard, rigid, and unyielding, and, after various other methods had failed, the hemorrhage was controlled by the tampon. On removing it, eight hours afterwards, and examining the clot which followed, the "twin embryo" was discovered, surrounded by the decidua, one the size of a hulled walnut, the other half as large again. Owing to the action of the preserving fluid, they are now somewhat smaller. The cause of abortion was, no doubt, dropsy of the amnion, as the sacs are distended to their natural size at the second month, while, from the history of the case, she could not have been more than three or four weeks gone.

Dr. JENKS made some extended remarks upon early ova: for the first five or six days it was supposed to be passing along the fallopian tube (in the bitch accurately ascertained to be ten or twelve days), but in only one case has it been pretended to have been found in the human fallopian tube, and the observations of that case were so imperfectly made that most probably something else was mistaken for it. He considered the observations of Dr. Allan Thompson on the three specimens examined by him at what he supposed to be the tenth, fifteenth, and twenty-first days, with the peculiar changes and developments from one period to the next, desiring that it should be remembered that these were all abortions or pathological specimens, and not the ovum in its natural and normal development. On a hasty examination in the present case, we notice the dorsal plates to be closed, the abdominal plates closed, allantoic membrane formed, eyes formed, ears indicated, upper and lower extremities just budding, as it were. In all probability it is from twenty-five to twenty-eight days old. It is the *first case of twin embryo* reported at so early a period, so far as I am aware.

The report of the committee on Dr. Beecher's case of congenital deficiency of the lower extremities was not read, the chairman of the committee not being present.

Dr. CATHCART exhibited a *carcinoma uteri* which had been treated, with great relief for a time, by scraping. Afterwards the cervix was removed at the suggestion of Dr. PARRY, who remarked to the Society that "the case was peculiar, insomuch as it had involved to so great a degree the body of the uterus, and as connected with a statement made by a German writer some two years ago, that uræmia resulting from hydronephrosis was the frequent cause of death in cancer of the uterus. Here we had a dilated ureter, with absorption of a portion of the kidney, but on close examination it was found that the obstruction was not due to extension of cancer, but to surrounding pelvic peritonitis."

* As some of our readers may not have seen the paper of Dr. Simon in the *American Journal of Obstetrics*, February, 1873, it may be well to state that he claims that the whole hand may be so introduced into the large intestine that physical explorations may be made of the lower two-thirds of the abdomen. A person with a hand having a circumference of over ten inches cannot do this; but when the hand is small, by folding it into a cone and oiling it, it can be readily introduced, the patient being in a state of anæsthesia.—ED. *M. T.*

DEATH FROM THE ANTISEPTIC USE OF CARBOLIC ACID (*British Medical Journal*, March 1, 1873).—David I. Hamilton details a case of death occurring in a child four and a half years old, from absorption of carbolic acid by a wound four inches long.

GLEANINGS FROM OUR EXCHANGES.

On Canine Madness.—In a paper on the above subject (*British Medical Journal*, March 8), Dr. E. P. Philpots writes as follows concerning the diagnosis of true and false madness in dogs:

HYDROPHOBIA.	DISTEMPER-MADNESS.
Definition.—A fatal form of madness communicable from the lower animals to man; characterized (as the name denotes) by an intense dread of water.	*Definition.*—A form of rabid madness non-communicable to man; characterized by foaming at the mouth, impairment of deglutition, and a desire to vomit.
Synonyms.—None.	*Synonyms.*—Rabies.
Premonitory Symptoms.—Begin two days beforehand, loss of spirits, loss of appetite, general depression.	*Premonitory Symptoms.*—Loss of appetite, and slight husking in the throat.
General Appearance during the Attack.—When let alone, the dog lies sullenly as if "out of sorts" and depressed, notices little, but recognizes his master by wagging his tail. Violently insane only on the approximation of water.	*General Appearance during the Attack.*—The dog bites at any of its fellows, gnaws at his bed, or the wall, eats straw, snaps at his attendant.
Fits.—Absent.	*Fits.*—Present in a marked degree, in most cases.
Foam at the Lips.—Absent.	*Foam at the Lips.*—Very much; the dog leaves it on the surface of the water he vainly tries to drink (the foam is caused by futile efforts to drink or swallow).
Water.—Sprinkled over or near him, causes violent convulsions.	*Water.*—Has no effect upon him.
Thirst.—Absent.	*Thirst.*—Intense, insatiable.
Desire for Water.—Absent on account of dread.	*Desire for Water.*—Very great.
Appearance of Eyes.—Dull or heavy.	*Appearance of Eyes.*—Dull, and green in their reflection.
Howling and Barking.—Absent.	*Howling and Barking.*—Present.
Muscular Affection of the Throat causing Inability to Swallow anything.—Absent, or not observable.	*Muscular Affection of the Throat causing Inability to Swallow anything.*—Well marked.
Causes.—None.	*Causes.*—Inflammatory action internally pervading the system.
Prognosis.—Very bad, always fatal, no chance of recovery.	*Prognosis.*—Good, or bad, according to the severity of the fits.
Terminations.—The symptoms do not vary to any great extent towards the termination.	*Terminations.*—A fit.
Pathology.—Intense inflammation of the brain extending to the throat and lungs.	*Pathology.*—Inflammation of the brain, often extending to the throat, the lungs, and the intestines.
Prophylactic Treatment.—None.	*Prophylactic Treatment.*—Vaccination is a certain preventive.

It will be noticed by this table that in hydrophobia there is a dread of water, and in distemper-madness there is a longing for it. In the latter disease, there is a spasm of the œsophagus which the dog tries to overcome by futile efforts to vomit.

The premonitory symptom of hydrophobia is a sullen depression; in distemper-madness the throat-symptoms are first observable. Regarding the general appearance during the attack; the hydrophobic dog is a sullen animal, merely appears much "out of humor," and is only actually mad on the approach of water; but in distemper-madness the animal really *is* mad in every sense of the term. He bites, and gnaws, and snaps, and chews anything that he thinks will cause him to vomit. The hydrophobic dog has *no* fits (except on the approach of water), and he does not foam at the mouth; but with the dog mad with distemper there is a succession of fits, one of which may end his life; his saliva, some of it of a frothy nature (foam), dribbles, and exudes from his mouth, and water sprinkled over him has no effect upon him. The hydrophobic dog hates the sound, the sight, the thought, of water, and will fly from it madly; but the dog mad of distemper rushes to it to assuage his thirst, but this he cannot do, as spasm of the œsophagus will not allow his swallowing. The hydrophobic dog's eyes are "fishy," dull, and sullen-looking; the dog ill of distemper-madness has bright, green, and savage-looking eyes, and he howls and barks. Dogs never recover from hydrophobia, but they do from distemper-madness, if the fits be not severe. Vaccination does not prevent hydrophobia, but it does distemper-madness.

Lactic Acid in Diabetes.—In the *British Medical Journal* of March 8, Dr. I. W. Ogle reports two cases of saccharine diabetes treated with lactic acid, and remarks upon them as follows:

In Case No. 1, which was under care for seven weeks, no marked diminution of urine, and no change in the specific gravity, were noticed; but after the long use of the lactic acid, and possibly in consequence of it, great constipation came on, requiring active aperients. The weight fell from 8st. 5lbs. to 7st. 7lbs. The temperature was chiefly *above the normal;* on one occasion only being below, and then it was 97.4 deg. Fahr.; on one occasion it reached 102.8 deg. Fahr. No pain and no excess of perspiration existed during treatment.

In Case No. 2, which was under treatment for eleven weeks before the lactic acid was given, the urine ranged in quantity between 112 and 178 ounces a day; after the use of the acid the quantity quickly diminished, and throughout its use fluctuated between 40 and 70 ounces a day, on one occasion being as low as 30 ounces. During all this period the specific gravity remained much the same as when the patient came to the hospital. The weight fell from 7st. 3lbs. to 6st. 8lbs. The temperature was almost always *below the normal,* being for the most part below 98 deg. Fahr. Neither the morning nor the evening temperature was uniformly above or below the other.

In neither Case 1 or 2 was there any indication of interference with, or affection of, the nervous system; power of movement of the entire muscular system, and sensibility, both general and of particular organs, being unaffected. In neither case was there albumen or excess of uric in the urine, nor did rheumatic pains or excess of perspiration ensue; and in neither was there any decided lung-mischief, though in Case 2 there was a degree of harshness of respiration.

As regards the results of treatment, it did not appear that in these cases any real benefit arose from the administration of the lactic acid.

Death during Etherization.—In the *Boston Medical and Surgical Journal* of May 29, Dr. Cabot reports the following:

"An old man, weak, but not excessively so, had undergone an operation which lasted three-quarters of an hour. He was removed from the operating-room, and the usual orders to watch him were given. Five hours afterwards he had a violent attack of dyspnœa, and died. Food was found in one of the bronchial tubes.

"He also referred to a similar case which had occurred some time ago. A fat woman, while lying on her back under ether, vomited, and some of the vomit getting into the trachea killed her."

MISCELLANY.

The Milk of Human Kindness.—The history of the great saving of life now effected in the transport of government convicts and of emigrants is so striking and so simple that it cannot be too often recalled to mind. At the commencement of the transport service of convicts, and, indeed, of emigrant passengers, the loss of life was terrible: an epidemic broke out, and a third, and, in one instance, nearly half, were thrown overboard before arrival. And yet there was nobody to punish. The skippers did not intend to kill the passengers, but

they wanted room for cargo, they did not think of the results, and so there was overcrowding,—sanitary science and ventilation being then unknown. At last some unknown civil servant got an alteration made—only one—in the terms of the contract, from payment per head on the number embarked, to payment per head on the number landed alive. Under this condition the whole state of things was changed. The skippers of their own motion got medical officers, and paid them for results. Sanitary science gleamed on these voyages. The skippers listened eagerly, and adopted zealously any suggestions made for improvement. They were their own inspectors, and they wanted no regulations. The work of benevolence was done without benevolence. For every poor lone passenger who happened to die during the voyage, one sincere mourner at the least was secured!—*British Medical Journal.*

A Remarkable County.—The Medical Society of the State of New York has recently made it obligatory on the part of every county society to examine all gentlemen intending to study medicine, and give them a certificate of their fitness. How far this provision is carried out we are not able to say. We know of two *counties* in the State who (*sic*) make it a regular practice, one of which is the *Ulster County Medical Society* (!). We were present at the last monthly meeting of this body, and witnessed such an examination, which was remarkably thorough, and conducted by the committee with a determination to fulfil the full letter of the law.—*New York Medical Record.*

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JUNE 3, 1873, TO JUNE 9, 1873, INCLUSIVE.

Smith, A. K., Surgeon.—Assigned to duty as Chief Medical Officer, District of New Mexico. S. O. 84, Department of the Missouri, June 4, 1873.

Alexander, C. T., Surgeon.—Relieved from duty in Department of the Missouri, to proceed to St. Louis, Missouri, and, on arrival, report by letter to the Surgeon-General. S. O. 113, A. G. O., June 5, 1873.

Gray, C. C., Surgeon.—Assigned to duty as Post Surgeon at Fort Clark, Texas. S. O. 96, Department of Texas, May 26, 1873.

Town, F. L., Surgeon.—Granted leave of absence for thirty days, with condition to make satisfactory arrangement for medical attendance during his absence. S. O. 104, Department of the East, June 5, 1873.

Fryer, B. E., Surgeon.—Assigned to duty at Fort Wood, New York Harbor. S O. 106, Department of the East, June 7, 1873.

Greenleaf, Charles R., Assistant-Surgeon.—When relieved by Assistant-Surgeon Huntington, to comply with orders received from War Department. S. O. 60, Department of the Columbia, May 23, 1873.

Huntington, D. L., Assistant-Surgeon.—Assigned to duty as Post Surgeon at Fort Lapevoi, Idaho Territory. S. O. 60, c. s., Department of the Columbia.

Brewer, John W., Assistant-Surgeon —Assigned to temporary duty at Fort McHenry, Maryland. S. O. 106, c. s., Department of the East.

Miller, G. McC., Assistant-Surgeon.—Relieved from duty in Department of the South, and ordered to Department of Arizona. S. O. 113, c. s., A. G. O.

Koerper, E. A., Assistant-Surgeon —Granted leave of absence for thirty days. S. O. 112, A. G. O., June 4, 1873.

Yeomans, A. A., Assistant-Surgeon.—When relieved by Assistant-Surgeon Matthews, to comply with orders received from War Department. S. O. 106, c. s , Department of the East.

Patzki, J. H., Assistant-Surgeon.—Granted leave of absence for four months, with permission to go beyond sea. S. O. 115, A. G. O., June 7, 1873.

Matthews, W., Assistant-Surgeon.—Assigned to duty at Fort Sullivan, Maine. S. O. 106, c. s., Department of the East.

King, William H., Assistant-Surgeon.—Relieved from duty in Department of the Missouri, and ordered to report to the Commanding General, Department of the South, for assignment. S. O. 113, c. s., A. G. O.

Byrne, C. B., Assistant-Surgeon.—Relieved from duty in Department of the Columbia, to proceed to Baltimore, Maryland, and, on arrival, report by letter to the Surgeon-General. S. O. 113, c. s., A. G. O.

Weekly Return of Deaths and Interments in Philadelphia for the Week ending Saturday, June 7, 1873.

Diseases.	Adults.	Minors.	Diseases.	Adults.	Minors.
Anæmia	1	...	Fever, Spotted	...	1
Apoplexy	1	...	" Typhoid	2	3
Asphyxia	...	1	" Typhus	1	...
Burns and Scalds	1	...	Fracture of the Skull	1	...
Cancer	3	...	" " Spine	1	...
" of Face	1	...	Gangrene	2	...
" Stomach	1	...	Hemorrhage	1	3
" Uterus	1	...	" from Lungs	2	...
Carbuncle	1	...	" Uterus	1	...
Casualties	4	1	Inanition	2	4
Catalepsy	1	...	Inflammation of Brain	...	12
Cerebro-Spinal Meningitis	2	14	" Bronchi	1	2
Child-Bed	1	...	" Kidneys	1	...
Cholera Infantum	...	4	" Larynx	...	1
Cirrhosis of Liver	1	...	" Lungs	5	4
Congestion of Brain	3	5	" Œsophagus	1	...
" Lungs	3	1	" Peritoneum	3	...
Consumption of Bowels	1	...	" Stomach & Bowels	3	3
" Lungs	55	6	" Uterus	1	...
Convulsions	...	17	Intemperance	2	...
Cramps	...	1	Jaundice	1	...
Croup	...	1	Marasmus	...	14
Cyanosis	...	1	Measles	...	1
Debility	12	15	Murder	2	...
Diarrhœa	...	1	Obstruction of Bowels	2	...
Diphtheria	...	1	Old Age	9	...
Disease of Brain	2	...	Paralysis	4	...
" Heart	12	...	Perforation of Stomach	1	...
" Hip	...	1	Poisoning	...	1
" Kidneys	3	...	Pyæmia	1	...
" Liver	1	...	Rheumatism	1	...
" Lungs	1	...	" of the Heart	...	1
Dropsy	5	2	Smallpox	...	1
" of Brain	...	3	Softening of Brain	1	13
" Chest	...	1	Still-Born	...	...
" Heart	1	...	Suicide	1	...
Drowned	2	2	Syphilis	1	1
Dysentery	...	1	Tabes Mesenterica	...	1
Effusion on Brain	...	1	Teething	...	1
Enlargement of Heart	1	...	Tetanus	...	1
Epilepsy	...	1	Tumors	2	...
Erysipelas	...	3	Ulceration of Rectum	1	...
Fatty Degene'n of Heart	1	...	" Stomach	1	
Fever, Brain	...	1			
" Catarrhal	...	1			
" Remittent	...	1			
" Scarlet	...	5			
Totals				180	160

Meteorological Observations taken at the Signal Office, Philadelphia, during the Week ending Saturday, June 7, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain. In.
June.				
Sunday 1st	30.29	63	Clear.	.....
Monday 2d	30.20	70	Fair.	.....
Tuesday 3d	30.16	61	Fair.	.....
Wednesday 4th	29.79	71	Fair, Cloudy.	.11
Thursday 5th	29.66	75	Fair.	.05
Friday 6th	29.80	71	Clear, Cloudy.	.....
Saturday 7th	29.97	68	Fair, Clear.	.....
Means	29.98	68	.....	.16

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

SATURDAY, JUNE 21, 1873.

ORIGINAL LECTURES.

CLINICAL REMARKS ON THE DIAGNOSIS OF APOPLEXY.

BY DR. H. C. WOOD, JR.,

Lecturer on Diseases of the Nervous System in the University of Pennsylvania.

GENTLEMEN:—Among the *οἱ πολλοι* the diagnosis of apoplexy is considered a very simple matter, but, in reality, to determine whether a patient is or is not suffering from cerebral hemorrhage is often a difficult, nay, an impossible, task. As an instance of an ordinary case of apoplexy, the following is related:

R. P., aged 65, on September 5, 1871, an hour or so after a heavy dinner, heard of his having received a government appointment for which he had been very anxious. At 6½ P.M. he took a cup of tea at a friend's, after which he returned to his lodgings; and at 7.30 P.M. persons passing by on the opposite side of the way were startled by a man at the window calling "Murder! help!" The persons in the house had previously heard pounding in the room, but thought nothing of it, as Mr. P. had been in the habit of stamping documents or letters there. On going up-stairs, Mr. P. was found lying on the floor in a semi-unconscious state, but, on being aroused, he stated that some one had hit him violently on the right side of the head. Dr. Adler, being called, found him, at 7.45, perfectly unconscious, with right pupil dilated; left contracted; the right leg in a state of exceedingly rapid vibration; convulsions; stertor; face not drawn; skin pale and cool. These symptoms persisted, except the convulsions, which soon passed off, and the man died about 11.30.

Autopsy.—Kidneys decidedly granular; brain, an enormous clot breaking down all of the centre of the right posterior lobe, and also the septum between the two hemispheres; it evidently first started in posterior cornu of the right ventricle.

In this, as in most other cases of cerebral hemorrhage, the prominent symptoms were disturbance of consciousness and unilateral disturbance of motility. Neither of these symptoms is, however, constantly apparent.

Thus, in apoplexy, a small clot may affect motility without causing loss of consciousness, or the whole body may be so relaxed and quiet that no difference can be perceived in the two sides.

When to these facts is added the circumstance that loss of consciousness may occur, and even be accompanied by unilateral paralysis, without cerebral hemorrhage, it is very apparent that the diagnosis of the latter lesion is often attended with great difficulty.

My own experience has been that this difficulty is even greater than the facts above narrated would indicate; for I have seen large cerebral hemorrhage occur without either immediate loss of consciousness or disturbance of motility. The following case is offered as proof of this assertion:

William Wilson, aged 70, came into the wards of the Philadelphia Hospital, October 14, 1872. The day after he came in, he seemed sleepy and stupid, but gave a perfectly rational account of himself, complaining only of pain in his stomach, and of vomiting after eating. There was a distinct systolic apex-murmur, and there were also sonorous râles in both lungs. He went about the wards freely, and nothing was discovered pointing towards the existence of nervous disease until November 1, when I noticed a decided paresis of the left leg, which, according to the testimony of the nurse, had gradually developed during the previous week, at first showing itself by a faint limp or halt in his gait. In the arm there were only the slightest traces of defective nerve-power; in the face none. The pupils were normal; the intellect was evidently affected, dulness and drowsiness having come on during the last few days. His symptoms now rapidly increased. There was no headache, but the drowsiness deepened into stupor, the paresis into paralysis, which by the 6th of November affected the face, and on November 9 he died, after having been comatose for some time.

The following is a record of his temperature as taken simultaneously in the two axillæ:

Nov.	3,	12	M.,	Right axilla	102°	Left axilla	102°
"	"	6	P.M.,	"	100°	"	101°
"	4,	6	A.M.,	"	99⅘°	"	99°
"	"	6	P.M.,	"	100°	"	99°
"	5,	7	A.M.,	"	101°	"	103°
"	"	5½	P.M.,	"	99°	"	98°
"	6,	6	A.M.,	"	98°	"	98°
"	"	6	P.M.,	"	99°	"	99°
"	7,	6	A.M.,	"	100°	"	101°
"	"	5½	P.M.,	"	100⅘°	"	101°
"	8,	6	A.M.,	"	99°	"	100°
"	"	4	P.M.,	"	103½°	"	104°

Autopsy, November 10.—Occupying the extreme anterior cornu of the right cerebral hemisphere was a clot the size of a walnut, certainly of some considerable age; yellowish in the centre. The whole right anterior lobe was involved in secondary softening.

Such a case as this, gentlemen, is an exceedingly rare one. In all probability, the rupture of the blood-vessel which caused the hemorrhage occurred some time during sleep; else there would have been some moment of unconsciousness, or some instantaneous sense of shock in the brain. Granting that the clot was formed during sleep, the case becomes parallel with one described by Abercrombie, in which a lady fifty-six years of age, and enjoying good health, was suddenly seized with violent pain in the head, and giddiness, and soon after lost her consciousness for a moment or two. No paralytic symptoms occurred for two weeks, when she had a distinct second attack of apoplexy, and died.

I think these facts are enough to convince you, without further illustration, of the difficulty that may attend the diagnosis of cerebral hemorrhage. The affections with which it is most likely to be confounded are, cerebral thrombosis, simple apoplexy, poisoning from alcohol or opium, and uræmia.

The following case will show you that thrombosis may put on the exact features of apoplexy. I do not think that the diagnosis is of practical importance; for in a case of thrombosis but one end can occur, and, whether you bleed or stimulate, the result will only be that for which the doctor is never blamed in apoplexy,—namely, death.

Jane F., colored, 65 years old, was suddenly seized on August 13, 1872, with a convulsion, whilst in the ward of the Philadelphia Hospital. She remained unconscious for about fifteen minutes, and when she awoke had marked left-sided hemiplegia, in which the face participated. The next day she could only move the fingers and toes very slightly; her mental condition was very dull, and she had an aphasia which was apparently ataxic.

On the 19th of August she died. At the autopsy a firm white clot was found in the right middle cerebral artery, with softening of the anterior lobe.

The term simple apoplexy is applied to those rare cases in which death occurs with all the symptoms of cerebral hemorrhage, and yet on post-mortem examination no lesion is found. To distinguish these cases during life from true apoplexy is simply impossible, and I do not propose to enter at all upon their discussion to-day.

The important practical difficulties in apoplexy arise in regard, especially, to poisoning and to uræmia.

The two poisonings which, from their resemblance to apoplexy and from their frequent occurrence, are most apt to be confounded with it, are those induced by alcohol and by opium.

It may be laid down as a practical aphorism that there is no symptom which will justify a physician, when called to a man who has been found insensible, in pronouncing positively that the case is one of drunkenness. Mistakes have very frequently been made, and men have been left to "sleep it out," who have slept on into the sleep that knows no waking. Further, apoplexy may come on during a condition of drunkenness, and its onset be unnoted until death unexpectedly results or the patient wakes up hemiplegic.

Thus, Dr. Hughlings Jackson mentions a case in which the alcohol impregnated not only the breath, but the urine also, and in which the patient was left to sleep it off. After death a clot was found covering nearly the whole of one hemisphere.

The following case also illustrates this point:

Bridget K., æt. 20, intemperate, came into the wards of the Philadelphia Hospital, April 13, 1872, suffering from paralysis of right face, arm, and leg. The paralysis was complete in arm and leg, with great relaxation and no contraction of muscles; that of the right side of the face, however, though very marked, was not absolute; the forehead was smooth, but there was no interference with closure of eye. Articulation was very imperfect.

For four or five days after admission, on being asked any question, the patient would assume a troubled expression as if of "trying to think," and would invariably preface her answer with, "You may say—" Her statements, at intervals of a few minutes, were discrepant. If taxed with telling an untruth, she would laugh, and seemed to delight in puzzling or misleading her interrogator.

Her mother says that the patient had been indulging very freely in liquor; that she was put to bed drunk on the night of April 8, and the next morning on awakening was paralyzed as at present.

This woman remained in the hospital until July 18, 1872, when she left the wards. At that time the leg had so improved that she could walk by means of a cane, but the arm was powerless, and the flexors of the fore-arm were very much contracted. After leaving the institution she resumed her habits of drinking, and late in October returned to the wards. Directly after this she died suddenly of œdema of the lung.

At the autopsy the remains of a clot were found in the left corpus striatum. The kidneys were granular.

When a patient is first seen during the advanced stage of opium-poisoning, the resemblance to apoplexy may be just as close and the diagnosis just as uncertain as in alcoholic poisoning. The following case will serve to illustrate this, as it was one in which the diagnosis of opium-poisoning was during life considered as warranted by the facts of the case, but was abandoned after death on account of the lesions found, although, as seems to me at present, the case was very probably one of such character. Before stating my reasons for coming to the latter conclusion, let me relate the circumstances.

Bridget ——; æt. 47; Irish; entered the Philadelphia Hospital with acute rheumatism. Late in the evening of November 29 she received, according to orders, thirty drops of the deodorized tincture of opium. On the morning of the 30th Dr. Potter was called, and found her unconscious, with stertorous breathing and contracted pupils. The pulse could just be counted. I saw her first at 8.25 A.M. She could then be roused sufficiently to say a word or two, but immediately relapsed into deep unconsciousness. Respiration 18 per minute. The pulse was so feeble that it could not be counted, but was beating over 150 a minute, and barely perceptible. Ordered f℥ij whisky, atropiæ sulph. gr. $\frac{1}{64}$ hypodermically. The battery was also brought into requisition.

9 A.M.—No improvement.

9.10.—Placed her in a bath at 117° Fahr., and applied the cold douche to her head and chest.

9.15.—Respiration deeper. Pupils slightly relaxed. Atropiæ sulph. $\frac{1}{60}$ grain injected.

9.25.—Pulse somewhat stronger.

9.40.—Put her in a bath at 120° Fahr. for 1½ minutes, using the cold douche as before.

9.45.—Pulse unchanged. Pupils dilated to nearly natural size.

10.—Skin moist; breathing somewhat easier. Pupils well dilated.

10.50.—The heart's action is evidently growing weaker. Its beat, as counted on auscultation, 140. After this about half a drachm of strong liquor ammoniæ was injected into a vein in the arm, without any apparent effect, and she died of failure of the heart's action at 2.30 P.M.

At the autopsy nothing abnormal was found, excepting a firm white thrombus occupying the anterior and middle cerebral arteries on each side, and extending a short distance into the carotids. The anterior lobes were, of course, very anæmic. The heart contained firm fibrinous coagula.

In deciding as to the cause of death in this case, it is evident that the first point to be determined is whether the thrombi in the cerebral arteries were the cause of the attack, or whether they were developed during the long, intense depression of the circulation which preceded death. Let me call your attention, then, to the fact that they were not embolic in nature, as there was no diseased valve or similar depot to furnish the material to plug up the arteries. What should cause a thrombus to form in a young, healthy woman? On the very

face of it, the idea that those thrombi were spontaneous, occurring before the failure of circulation, is an improbable one. Further notice that both sides are symmetrically affected; that in each the anterior and middle cerebral and even the carotid arteries are affected. It is simply inconceivable that a thrombus should form in such manner in a woman of the patient's age, or indeed of any age, whilst the circulation was at all active. I think it may be laid down as a law that thrombi forming in a cerebral vessel are due to a disease of the coats of that vessel. There is no marked disease of the walls of this woman's arteries. The symmetrical character of the coagula, and their extensiveness, show that they are due not to local but to general causes. Look at the heart: its cavities are filled with coagula as white, as fibrinous, as those in the vessels. Would any one maintain that the heart-clot was not formed during the long hours of almost suspended cardiac action that preceded death? Evidently the cerebral thrombi were of the same nature as the cardiac, their origin during the same period, and from the same causes. In regard to the amount of laudanum administered, the statements of the nurse must be taken *cum grano salis*. She may speak the truth; she may have made a mistake without knowing it herself; she may be purposely concealing her handiwork. Who can tell? The case seems to me to have been one of opium-poisoning, because the symptoms are in accord with such view, whilst at the post-mortem nothing to account for the fatal result was, in my opinion, discovered. Notice, I pray you, however, that I say *seems*, for the diagnosis is by no means a certain one: there is no absolute proof that the woman died of poisoning.

The facts being as they are, the diagnosis of apoplexy being in some instances at once so difficult and so important, it behooves us to consider closely what are the points to be looked at when called to such a case. As the patient lies before you unconscious, you should first test the extent and amount of that unconsciousness by shouting in his ear, shaking him, etc., and should note whether he can or cannot be roused out of it. Then the existence of local paralysis should be looked for. If it be found, it demonstrates that the case is not one of poisoning. Remember, however, on the other hand, that your inability to find the local paralysis by no means proves the absence of a cerebral clot.

There are two sets of apoplectic cases in which you may not be able to perceive any difference in the two sides,—the one where, as in the case narrated earlier in my lecture, there is an enormous clot oppressing the whole brain; the other where the clot is small but lies near the centre of the pons varolii, and consequently affects both sides of the body equally. It is plain that in the first case you will have the most profound unconsciousness; in the latter the unconsciousness may be much less marked, so that the patient can be aroused. Unless in the very last stages of opium and alcoholic poisoning, the patient can by loud shouting and severe shaking be aroused; so that you can distinguish the apoplexy of the profounder type with a certain amount of probability by the mere absence of capability of being aroused. Moreover, an examination of the pupils in this form of apoplexy will often reveal a decided inequality. As such inequality is hardly conceivable in poisoning, its importance is at once manifest. If there be a history of sudden attack, an unconsciousness complete, an inequality of pupils, the attack is almost certainly apoplexy, of some form,—probably due to a large cerebral hemorrhage. In hemorrhage into the pons, convulsions are almost invariably present; and, as their occurrence is very rare in poisoning from alcohol or opium, they are of diagnostic significance.

By attending to these points you will almost always be able to make a probable diagnosis. But, gentlemen, do not be too positive or outspoken in your assertions to the friends of the sufferer. Especially is it incumbent on you to hold your peace if you suspect poisoning.

In regard to the development of apoplexy during drunkenness, you should be led to suspect it when there is a sudden deepening of the unconsciousness into complete coma and a sudden development of stertorous breathing, especially if this change of symptoms occur after a fall or a blow upon the head. Remember, however, that unless in very marked cases the diagnosis is rather a matter of suspicion than of scientific deduction.

In regard to uræmia, in most cases the confounding of it with apoplexy is inexcusable; and yet it is sometimes unavoidable. I have seen one case in which I made the diagnosis of cerebral hemorrhage on account of the sudden development of unconsciousness with a perfectly marked hemiplegia, but in which an autopsy showed that there was no brain-lesion,—simply advanced contracted kidneys. You may call the case simple apoplexy, but I cannot help believing that the origin of the symptoms was the same as that of the more ordinary manifestations of uræmia.

Generally in uræmia the gradual onset of the drowsiness, the state of semi-coma out of which the patient can be momentarily aroused, the absence of paralysis, and the presence of convulsions, make the diagnosis easy enough.

ORIGINAL COMMUNICATIONS.

GLEANINGS FROM HOSPITAL PRACTICE—GUNSHOT WOUNDS OF THE HEAD.

BY H. E. WOODBURY, M.D.

DURING my service as a member of the medical staff of Armory Square General Hospital in 1864 and 1865, I met with many novel and interesting cases of gunshot wounds. It has been my purpose to publish a brief history of some of these, but other demands upon my time have prevented me from so doing. As our hospital was located only a few blocks from the steamboat wharf, we received a majority of the worst cases.

Case I.—In 1864, Major H., of a New York regi-

ment, was brought into my ward wounded. A bullet from a carbine or navy revolver struck the dorsum of the nose at a point about one inch below its summit and passed into the head and brain. I did not deem it expedient to probe this wound to any great extent, but satisfied myself, by passing a silver sound for about two inches into the opening (which was very small), that no spiculæ were present. At least I could detect none. I applied a cold-water dressing, ordered "special diet," and pursued the expectant plan. After a few days there was a somewhat offensive discharge from the nostrils, for which antiseptic injections were used. The patient was a man of great determination and of strong constitution. In a few weeks his wound healed, and he desired to walk about the ward. On making the attempt, he found that he could not stand without assistance, and, even when supported, he had lost the power of locomotion to such an extent that he could not take one step. This was the interesting phase in his case.

I at once ordered strychnia with dilute phosphoric acid, and directed him to renew his attempts to walk daily. In about one week he had so far recovered the use of his limbs that, by taking hold of the wire by which the musquito-nets were suspended, he could shuffle himself across the ward. From this time he continued to improve, until at length he had gone through the process of learning to walk, if so I may express it.

He left for his home, on furlough, after having been a patient about two months, and on his return, sixty days after, he had gained so much that I did not recognize him. "Doctor, you do not remember me," he said, pointing to a very small scar on his nose,—when I at once called him by name. He then informed me that his wound had caused him no trouble during his absence, that his health had never been better, and that he was on his way to duty, "to take another chance at them." I have never seen him since.

In this case, I have no doubt, the ball penetrated and was lodged in the cerebellum, causing, by the irritation it produced, temporary paralysis of that portion of the brain. During the entire course of treatment there were no other indications of cerebral derangement,—no delirium—and very little, if any, febrile excitement.

Case II.—Private B., admitted from the army of the Potomac, in September, 1864. A fragment of shell struck him on the forehead, cutting away a portion of the cranium (frontal bone), and leaving the brain exposed and lacerated. The wound was nearly oval in shape, and included the upper third of the forehead, extending backward nearly to the coronal suture. When brought in, he was in a comatose condition, from which he never rallied. Cold-water dressings were applied, and frequently changed. On the third or fourth day after admission, while the dresser was changing the lint, a fearful hemorrhage ensued. He at once called me, and I took up the meningeal artery and ligated it. I reported the fact to the surgeon in charge. "It will do no good, doctor," he replied, "for sloughing will take place, and your man will die from hemorrhage." His prediction was not verified, as the patient lived forty-eight hours, and then died without having lost another drop of blood,—probably from nervous exhaustion.

Case III.—Private G., admitted November, 1864, from the army of the Potomac, with gunshot wound of the head. A minie-ball struck the frontal bone at a point about one and a half inches in front of the coronal suture, and an inch to the left of the median line, cutting a neat furrow from two to three inches in length, and leaving the brain exposed. Cold-water dressings were ordered, with light nourishing diet, and perfect quiet. In a few days profuse fungous granulations made their appearance in the wound. These I clipped off with the scissors, and touched the parts from which they sprang with nitrate of silver. A healthy action speedily followed, and after a sojourn of six weeks in the hospital the patient left, apparently as well as ever, for a visit to his home.

My experience and observation in the service convince me that, as a general rule, the probing of gunshot wounds of the head is inadmissible. In short, in all cases of gunshot wounds, the less we use the probe the better. In 1863 I saw in Seminary Hospital, Georgetown, a German who had received a ball (probably a round one from a smooth-bore) in the temporal region just in front of the ear. Two medical officers were present with me at the time. We each in turn examined the wound with the little finger. This was passed in its entire length. No probe or sound was used. The water dressings were applied, and in thirty days, to our surprise, the man was fit for duty. I have no doubt a moderate amount of probing would have produced a very different result in this case.

WASHINGTON, D.C., June 9, 1873.

THE DOSE OF CARBOLIC ACID.

BY DR. W. G. COTTON,

East Bethlehem, Washington Co., Pa.

THE following case is of interest, as showing that we may yet be unacquainted with what should be the proper dose of carbolic acid in some instances. Mrs. Moffitt, aged 70, was suffering from diarrhœa, for the relief of which she requested her husband to pour out twenty-four drops of laudanum. He by mistake gave her that amount of crude carbolic acid. It "burnt" the mucous membrane of the mouth and throat considerably, and produced a moderate amount of nervous prostration, which did not last long. She at once was aware there had been a mistake made, but thought the drug taken was "pain-killer." In about an hour afterwards the discovery was made that carbolic acid had been taken, and milk was then freely used as an antidote. The evil which resulted was immediate, but immaterial, and the good accomplished was the relief of the diarrhœa. I would not recommend twenty-four drops as a proper dose of this fluid, but have an idea that one drop is rather homœopathic.

TRANSLATIONS.

HYPNOTISM OR BRAIDISM IN ANIMALS.

An abstract of two Lectures delivered by Prof. Joh. Czermak in the private Physiological Laboratory of the University of Leipsic and published in *Die Gartenlaube*, Hefte 2–3, 1873.

BY DR. WILLIAM ASHBRIDGE.

THE subject of the two lectures of which this article is an abstract is one that is of interest in two respects. The physiological appearances of which descriptions are given, and which are demonstrated upon animals of various sorts, considered by themselves are in the highest degree surprising and wonderful; and, on the other hand, they show how readily men, even when of fair education and good abilities, fall into error in the deductions which they draw from their observation of natural phenomena, if they are lacking in that special scientific training which alone can render them capable.

The want of discrimination and the prejudice of such observers are astonishing, and prove how little weight the scientific investigator dares give their statements. The witness certainly was present and heard and saw all that occurred, yet still what he asserts must not be accepted as accurate, although no doubts of his veracity are entertained. This apparent paradox is explained by the fact that such observers cannot judge between mere co-existence or sequence in time and the relation of cause and effect: they make the frequently-committed error of substituting "propter" for "post hoc," and thus draw a worthless inference.

The best designation for occurrences of this character is that of "insufficiently proven," or "inaccurately observed;" and the establishment of this category of natural phenomena, so far from being only allowable, becomes almost obligatory, for it deals with a class of subjects which play an important *rôle* in the intellectual development of man. The inaccuracy of the unscientific in these matters deserves this notice; for it is only by careful and accurate observation that the spread of credulity and superstition can be prevented.

We children of the nineteenth century are not a little proud of our civilization, cultivation, and enlightenment, and indeed, in comparison with the Middle Ages, justly so; for since then mighty steps in advance have been made; but, at the same time, our self-approbation should not be too great; for even at present we find theories and beliefs prevalent which would not be listened to a moment if the mass of the people had the vaguest idea of the true methods or results of the study of nature, or a little more respect for them as taught by those worthy of credence.

To give a catalogue of these things would be tedious: it will suffice merely to name the usual manifestations of the spiritualist, table-turnings, spiritual rappings, etc., and animal magnetism, so called. What has been said has been but by way of introduction to our proper subject, those wonderful physiological appearances in animals, which, although long known, have been but recently made the subject of scientific research, under the name of Hypnotism or Braidism, and scarcely yet admitted into the regular list of the phenomena of the physiology of the nervous system.

The attention of Prof. Czermak was called to this subject by the assertion made by a casual acquaintance that he had frequently seen crabs "magnetized," and had even succeeded in doing it himself. This was accomplished by holding the crab with one hand and with the other making "magnetic passes" from the tail to the head of the animal, which under this manipulation soon ceases its struggles, and allows itself to be placed upright, standing upon its claws and head. The crab remains in this state till, by "passes" in the reverse direction, it is "unmagnetized," when motion reappears, its equipoise is lost, and its full activity returns.

If the same experiment is made, omitting the passes, *i.e.*, if the crab is placed upon its head and two claws and held in that position, after a time the same phenomena will be seen: the animal ceases its struggles and becomes motionless in the unnatural position which it has been forced to assume. To have the return of activity we have but to wait, and, omitting the magical passes altogether, the animal in a short time resumes its wonted movements. The utmost influence that can be laid to the "unmagnetizing" process is that it may by currents of air or the increase of temperature accelerate the return of functional activity to the nervous system. The truth of the matter is, the passes are made and the loss of motion follows, but the relation is but one of time, not of cause and effect. The same results are obtained by suspending the animal by its tail by means of a thread, or even by holding it upon its back by means of a glass rod: in both cases there occur vain struggles followed by immobility. In these last two experiments there can be no question of magnetic force going forth from the experimenter, and yet the same ends are attained. Still further, a careful observation of these animals shows that at certain seasons they fall into this state without any outward influence whatever, so far as can be seen. The so-called magnetizing them by accurate testing and observation shows merely that these animals possess the wonderful power of losing the irritability and conducting power of their nervous system for a time if held in a certain position, in spite of the resistance made by them at first; the passes have nothing whatever to do with the result.

The well-known experiments with hens made as early as 1646 by a Jesuit, by tying the feet, drawing a line from the beak with chalk, and then removing the band from the feet, the hen remaining perfectly quiet for a variable length of time, can be done just as well with the omission of the chalk and the confining band: simply holding the bird in the unnatural position with the neck stretched out, will suffice. Ducks, geese, and even swans, can be treated in a similar way with similar results. In some of the smaller birds the hypnotic state can be induced by holding them on the back, fixing the head by the thumb and finger, and stretching the head and neck somewhat backward: the bird lies still, breathing strongly, but in other respects as if sleeping, in this unnatural position.

A frog laid upon its back quickly seeks to regain its natural position; but by tying a band moderately tight around the upper part of each leg and then placing the animal on its back, it is thrown into the same state as the other animals upon which the experiments have been made. When the pressure made upon the nerves of the skin by the cords is removed, the effect remains some little time, but gradually the frog regains its wonted activity. That in this case the effect depends upon the impression made upon the nerves of sensation, can be demonstrated by the section of these trunks, when these results no longer follow the application of the cords to the limbs. After this experience with the frog, it would appear that the tying of the legs of chickens in the old experiment, although not essential, is still of some influence, and that the result is attained by a series of co-operating influences. In the pigeon the hypnotic state cannot be induced by holding the bird upon its back and stretching the neck, as in the hen, neither by the procedure found successful in the smaller birds; but by affording an object to fix the attention of the eyes of the bird, the same result is attained.

This furnishes us with the third factor of the series of influences,—the fixation of the attention. Of course for this purpose it is not needful to employ the finger of

the experimenter: any inanimate object does just as well: so that it cannot be asserted that any "magnetic" influence is emitted from the person. Chickens can be thrown into this state by means of a piece of pasteboard cut into the form of a horse-shoe and hung over their comb, allowing the ends to come just in front of the eyes: they fall into a condition simulating sleep, in which their heads can be raised or lowered, remaining where placed, as if the neck were made of wax. From all this, two conclusions may be drawn: that by fixing the attention the cataleptic and hypnotic state can be produced, and that this so-called hypnotic state can be induced in animals,—a fact which has been suspected, and even asserted, but which has never been accurately examined into before.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR GROSS, M.D.

Reported by Edward L. Parks.

STRICTURE OF THE ŒSOPHAGUS.

THIS woman, 58 years old, has suffered from stricture of the œsophagus during the past two years. She is now unable to take any kind of solid food, and she is obliged to swallow liquids with the greatest deliberation, sip by sip, or they always at once regurgitate. It is six weeks since she has taken any solid food. She is losing flesh rapidly, and is so much weakened that she cannot perform the ordinary household duties. She has no pain, except occasionally in the back.

I shall now try to pass an œsophageal bougie, after having carefully oiled it. It descends a great distance without interruption, showing that the constriction is low down. I shall next try this prostatic catheter, which is longer and will pass through a smaller orifice. It, too, fails to enter the stomach. The examination merely reveals the fact that the œsophagus is tightly constricted at its lower extremity. Of its nature we cannot speak with certainty. Thirteen years ago Dr. W. H. Pancoast removed her left breast on account of scirrhus. The present trouble may be similar to that which attacked the breast, for it is well known that scirrhus often appears simultaneously in different parts of the body.

It is unusual to find an organic stricture so low down. Usually it is situated opposite the larynx. The disease may be carcinomatous, syphilitic, or caused by the presence of a foreign body, or the effects of lye. I show you the œsophagus of a child who drank from a cup containing lye. The stricture is so tight that not a drop of water can pass through. The child died emaciated to the utmost degree. A spasmodic stricture of the œsophagus is a very different affection from an organic one. It occurs in women oftener than in men, and is especially frequent in young girls of a nervous, irritable temperament. It may depend on dysmenorrhœa about the age of puberty, or upon affections of the womb at any period of life, upon spinal irritation, or indigestion. It often appears suddenly with a sense of suffocation. Antispasmodic remedies, as assafœtida, valerian, or Hoffman's anodyne, relieve it. It generally vanishes, as if by magic, at the simple touch of the bougie. The patient should guard against its recurrence, by careful attention to the general health.

The patient before us should make free use of milk punch, and take gentle exercise, when the weather permits, in the open air. Anodynes are not called for, because of her freedom from pain. Direct interference of any kind would be unjustifiable. Gastrotomy is sometimes employed in cases of this kind, of course only as a *dernier ressort;* but for such an operation the patient is utterly unfitted.

ORCHITIS.

This young man, 17 years old, has a swelling in the left testicle. The organ is the seat of a dull, aching pain, is tender to the touch, hot and hard, with a sense of weight, which is a common symptom of orchitis, especially of the acute variety. The man says he has never had venereal disease; and his statement derives plausibility from the fact that the epididymis is free from inflammation. The common cause of orchitis is gonorrhœa repelled by a cold or mechanical irritation, and then the disease usually begins in the epididymis, or, indeed, may be wholly confined to it so that it is rather epididymitis than orchitis. Another cause is direct violence; and it was doubtless the origin here, for the patient struck his testicle smartly in mounting a horse not long ago.

In all cases of orchitis, serum is effused into the vaginal tunic: hence a part of the treatment consists in drawing off the fluid by one or more punctures. This treatment is suited to the cases only in which the distention is considerable. Much of the hardness depends on effusion of lymph into the seminiferous tubes. Suspension is useful if done judiciously. I shall direct the application of a dozen foreign leeches, followed by a lotion of sugar of lead and powdered opium, dissolved in hot water and used cold. The diet should be strictly light; and a mixture of tartar emetic, epsom salts, and tincture of veratrum viride should be freely exhibited.

It may become necessary to give mercury, but it is not advisable to do so until this treatment has been fairly tried.

CYSTIC HYDROCELE OF CORD.

The boy now before you, gentlemen, is fifteen months old. There is a fulness, not in the scrotum, but in the groin, which has an elastic feel, but cannot be made to disappear by the pressure of my fingers. It is insensible and colorless, except that the tumor under the integument is slightly bluish. You are aware that congenital scrotal hernia is not uncommon; but that is not the case here, for it would have been noticed long ago, whereas the mother says she only noticed this swelling very lately. Hydrocele of the cord may be congenital, and may be associated with scrotal hernia. By making the tumor tense and inserting this exploring-needle, properly oiled, there is an escape of fluid, which establishes the diagnosis beyond doubt. Cystic hydrocele of the cord, then, is the trouble, a disease comparatively rare in children. It is to be treated precisely like that of the vaginal tunic,—by exciting inflammation and thus provoking an effusion of plasma.

EPITHELIOMA OF THE LOWER LIP.

You observe that the lip of this young woman is fissured and covered for the most part with an incrustation. There is a raw surface at one part, but no material hardening anywhere. She has no pain, but occasional itching. Her general health is poor, and she is inclined to be dyspeptic. The first thing to be done is to get rid of the scabs; and for this purpose I shall direct the application of a compress, wet with warm water, at night, to be followed by a lotion containing three drops of the officinal solution of acid nitrate of mercury to the ounce of water. Let her take, besides three grains of blue pill and one grain of ipecac daily, a mixture of Fowler's solution, corrosive sublimate, and tincture of the chloride of iron.

Her blood is deficient in red globules and fibrin. The iron will exert a tonic influence, and Fowler's solu-

tion and corrosive sublimate are each excellent alterants. We shall see her again, and if she is not much improved in two or three weeks I shall remove the offending portion of the lip by a V-shaped incision. She has evidently epithelioma, with a tendency to malignancy.

STONE IN THE BLADDER.

This man, kindly brought here by his physician, Dr. Weisse, is a farmer, 61 years old. He suffered originally from paralysis of the bladder, and during the last four years has been unable to pass his water without the use of a catheter. He now has recourse to that instrument many times in the day, and, according to his statement, from ten to twenty times in the night. He has constantly a burning pain in the bladder and urethra. The constancy and intensity of the pain may be appreciated by the fact that his medical attendant has been giving him daily five grains of morphia, in two doses, without obtaining sleep. Such is the tolerance of opium that pain produces. The urine is occasionally quite bloody. Flatus in the rectum increases the vesical irritability. His bowels are habitually constipated. Dr. Weisse informs me that the prostate is enlarged. This completes the history of the case; and we shall now look for further information by examination.

I introduce this sound, oiled and warmed. If you are very quiet, I think you can all hear the sound of the instrument as it strikes against a stone. I now insert my finger, oiled, into the rectum. The prostate is enlarged in its antero-posterior diameter, so that my finger cannot reach its farther extremity. It is plain that both the stone and the prostatic enlargement are of several years' duration.

The patient says that the pain increases immediately after the passage of water. There is in many cases of this kind a sense of relief at that time.

I shall not operate upon him to-day, because he travelled ninety miles yesterday in coming here, and therefore would ill bear the shock of an operation after so much fatigue. I shall order him, thrice daily, twenty grains of bicarbonate of soda, to obtund the morbid sensibility of the mucous membrane. Experience shows that this remedy is better than the bicarbonate of potash, though they are sometimes combined. He should be well fed, because he is old and weak. Milk punch or ale might be beneficial; though the latter would increase the flow of urine. Sydenham, the Hippocrates of his time in England, suffered with vesical irritability in the latter part of his life, and was much relieved by drinking ale, the lupulin of the hops exerting an anodyne influence.

NEURALGIA.

This man, 47 years old, suffered at one time from pain in the right side and shoulder, so much that he sought relief in one of our hospitals. He is now tormented constantly with sharp, shooting, burning pains in the testicles, especially the left, in the spermatic cords, the bladder, and, more rarely, between the shoulders and along the thighs. He has a scalding and bearing-down sensation on micturition, and he passes, he says, his water every five minutes in the day and night, a statement which is to be taken with some reserve. His bowels are constipated. He does not sleep, and he perspires profusely. He thinks he never fully empties his bladder.

In examining him in the same way that I did the previous case, I find a capacious bladder, not at all fasciculated, though I think there is some roughness at the upper end. The prostate is of natural size. I find no stone, but there may, nevertheless, be one; for, as I have tried to impress upon you, we may only find it after repeated failures to do so. There is a neuralgic element in the case, as is proved by the history of the case, especially by the fact that he felt pain first in the side and shoulder. The remedy I shall order consists of a combination of uva ursi and soda, the bicarbonate of soda to be added to the infusion of uva ursi after it is prepared.

Of this a tablespoonful and a half, four times daily, in a quarter of a tumbler of water, is to be taken. The uva ursi acts specifically on the bladder, and the carbonate of soda will obtund its sensibility. The patient should abstain from animal food and coffee, and should remain recumbent. He may use tea and milk freely. He is to take, also, morphia and quinia freely.

Fomentations are often useful in such cases; but I shall not use them here.

A New Method for Healing Ulcers (Dr. Nussbaum: *Wien. Med. Presse*, May 4, 1873).—The author claims to have successfully treated upwards of sixty cases of chronic, extensive, and otherwise intractable leg-ulcers, by the following simple procedure. It is at least worthy of a trial. The patient is first narcotized, and then around the ulcer of the leg or foot, a finger's breadth from its margin, an incision extending down to the fasciæ is made; numerous blood-vessels are divided, and a severe hemorrhage ensues unless a fine pledget of lint be packed into the cut and the entire ulcer strongly compressed. The packing with lint is also necessary to prevent union of the cut edges by the following day. Upon the second day the bandage and lint are removed; from then until a cure is effected a simple water-dressing is applied.

The author states that an astonishing change can be seen, even in the first twenty-four hours: the ulcer, which yesterday threw off quarts of thin, offensive, ichorous pus, furnishes to-day not more than a tablespoonful of thick, non-offensive, healthy pus. The old ulcer becomes rapidly smaller, healing from the margin towards the centre, and is healed in a short time, but the cut is changed into a broad circular sore, which also speedily cicatrizes.

The great diminution of the secretion, and other favorable changes occurring in the ulcer, find an explanation from the fact that the circumcision has divided dozens of large, abnormally widened blood-vessels. Time is thus given for the lessened nutritive material, which previously was carried off by the excessive secretion, to be transformed into cells and connective tissue; in other words, granulations are formed, which fill up and heal the deep ulcer.

Without claiming this as a radical method, the author assures us that the cure is much more rapid, and the cicatrix becomes more elastic and resisting, than in the ordinary means applied, which usually require so much time that the patients depart with half-cured ulcers, soon to find themselves in their previous deplorable condition.

Temperature as an Indication of Fœtal Life.—According to Cohnstein, the temperature of the uterus is a more certain indication of the life or death of the fœtus than either its movements or the beating of its heart. The fœtus has a higher temperature than the mother, and imparts it to the uterus; so that this organ is warmer than the axilla, or even than the vagina. If the child die, the temperature of the uterus falls to the level of that of the other parts of the body, and even, Cohnstein says, below this, as the dead fœtus abstracts heat from it. This fall of temperature becomes perceptible two or three hours after the death of the fœtus, and may be ascertained by introducing a curved thermometer a little way beyond the inner os uteri. In this way, also, the diagnosis between intra-uterine and extra-uterine pregnancy may be assisted.—*British Medical Journal.*

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

A PRACTICAL REFORMER.

MOST of our readers will remember the travail, some years since, of President Bergh, of New York, and of the Female Branch of the Pennsylvania Society for the Prevention of Cruelty to Animals, on account of the frightful tortures inflicted by the physiologists upon the lower animals. As the wicked physiologists have continued to torture the unfortunate dogs, cats, rabbits, rats, and other creatures in the lower ranks of life, it is to be hoped that time and usage have rendered these aforementioned philozooists less sensitive, and thereby relieved their sympathetic sufferings. Feeling, however, as we do for them, we hail with delight a prospect of relief. One Mr. Rusden, of Melbourne, Victoria, has read an essay before the Royal Society of the place, containing a proposition which does honor to his heart and head, and which will do away with all excuse for the unhallowed practices at present indulged in.

Being of a practical as well as of a philanthropic turn of mind, Mr. Rusden proposes to accomplish several ends at once. When his scheme is carried out, "the honest, starving poor will no longer be so mistaught as that crime will entitle to state maintenance, and solve all their difficulties," and "criminals, by being made to work for their support, will not compete with honest labor." Hence there is the solution of the vexed question, What shall we do with our criminals? The convicted persons are to be utilized as subjects for physiological, medical, and surgical experiments. For this purpose they are to be divided into three classes. 1. Those convicted of minor offences, who are only to be employed in testing the value of various forms of diet, or of such drugs as can cause but little pain or inconvenience. 2. Those guilty of serious offences, on whom graver experiments are to be practised, but in whom life is not to be risked. 3. Those convicted of the highest grades of crimes, in whom life is to be freely put in peril.

As already stated, the mind of Mr. Rusden is both humane and practical: humane, because, according to the new code, "no unnecessary pain shall be inflicted;" in fact, it will be generally indispensable to avoid it by means of anæsthetics; practical, since, he says, "a fourth advantage is the enormous reduction of cost in the final disposal of criminals which would obviously result; as all the worst criminals would be utilized for experiments involving so much risk or certainty of death as would speedily reduce their numbers. I believe that the present cost of disposing of criminals would be reduced far more than fifty per cent., and that the supply of subjects for experiment would soon fall far short of the demand." The enthusiasm of Mr. Rusden is quite contagious. We feel its influence, and sincerely hope that the legislature or house of assembly of Victoria will not fail to give the stamp of actuality to his suggestion. We shall watch with interest for the passage of the needful laws, and then, if it be not too late, shall apply for a position upon the well-paid medical staff appointed to carry out its provisions. Let us trust that the time is not far distant when troubled visions shall no longer haunt the sleep of rabbits, dogs, cats, and their congeners.

BABIES AND BEEF-TEA.

WE have long thought that the statistical patriots were on the wrong track in their perennial lamentations over the decadence of our native population, in so far that they are continually urging for the birth of more children. From our point of view it is much more decisive in the increase of a people how many infants live than how many are born. Moderate-sized families of strong, healthy, well-trained children we hold to be of much more value to the state than great litters of under-nourished babies,—early candidates for the grave-yard.

It is, therefore, with great pleasure that we see our Obstetrical Society, instead of fulminating anath-

emas, devoting its attention to the reduction of infant mortality. Under its direction there have been recently issued special rules for the management of infants during the hot season, in a little pamphlet, which ought to be, and we believe is to be, scattered broadcast throughout our city. When the summer's season is fairly upon us, we hope the committee will see that the rules are published in at least one of our daily papers.

The rules themselves are excellent, and worthy of the array of names by which they are signed. Unfortunately, in one of a series of receipts added to them there is a very serious misstatement, which, as it supports a popular error, and relates to an intensely practical point, suggests a comparison between the committee and the famous cow that gave a good pail of milk, etc.

We do not propose to insult the intelligence of our readers by offering proof that beef-extract and beef-essence contain at most only a homœopathic allowance of nutriment; yet constantly mothers, nurses, and, we may add, even doctors, are dosing with these preparations children and adults, under the delusion that they are feeding them,—a delusion which is already sufficiently chronic in most of the individuals afflicted thereby, but which we fear will be rendered hopelessly incurable by the assertion of this learned committee that beef-tea when made in accordance with a certain receipt contains the whole nourishment of the beef. There is undoubtedly a difference between beef-tea and beef-essence; but, as this is not distinctly stated in the pamphlet of the Obstetrical Society, the assertion alluded to will certainly confirm error in the mind of the popular audience to which the rules are chiefly addressed.

More to the point, perhaps, is the fact that the statement of the committee is very far from being true as regards beef-tea. The receipt may be found in another column of our issue. It is very evident that, when beef-tea is made in accordance with its directions, only such matters as are soluble in water are extracted from the meat, the fibrin, the muscular fibre, etc. being left behind, whilst the kreatinin, carnin, and other innutritious products of destructive metamorphosis, with the inorganic salts, are dissolved.

It is equally evident that the only nutriment contained in this Obstetrical fluid is albumen. We have had a pint of the beef-tea carefully prepared according to the receipt of the committee, and on adding to it nitric acid obtained precisely one hundred and ninety-one and a half grains of precipitate. The truth of the following formula consequently rests upon the official declaration of the Philadelphia Obstetrical Society: Albumen ʒiij = Beef one lb.

We do not mean in any sense to deny the value of beef-tea when properly used. We do mean to insist that as a food it is an extremely wasteful preparation, and that to tell the poor of the community that they are giving to their children all the nourishment of the beef in giving beef-tea is to practise unwittingly a great fraud upon them.

Moreover, we desire to call the attention of physicians to the fact that beef-tea contains so much potash that when given in large quantities it is a medicinal agent and can only be intelligently employed with a direct appreciation of this fact.

According to Lehman's analysis, a pound of beef contains about forty grains of potash; and, as this is all extracted by the water, the beef-tea of the Society contains at least one-fifth as much potash as albumen.

PROPYLAMINE.

THE amount of attention which this alkaloid is attracting in Paris and in London, and the assertions which are made of its novelty, strike us as being something extraordinary, seeing that it was tried more than ten years ago in this city for the very complaints—*i.e.* rheumatic troubles—in which it is now lauded abroad, and was found wanting. Whether it will prove more reliable now than it did then, whether it was used here in too small doses to be effective, we cannot tell. Those of our readers who desire all the information that is possessed of its action are referred to Guibourt's "Traité des Médicaments Nouveaux," second edition, 1865, and to an inaugural thesis published at Strasbourg, in 1870, by M. Fargier Lagrange, who speaks of it under the name of Trimethylamine. He claims that it "diminishes the intra-organic combustion, and lessens the elimination of urea; decreases the activity of the circulation, and lowers the temperature; and exercises a sedative action on the nervous system, manifestly diminishing the neuralgic and articular pains."

It is stated that the best results are obtained in the most acute forms of inflammatory rheumatism.

THE *New York Medical Journal* for June is mistaken in asserting that the Jefferson Medical College of this city failed in its effort to obtain a State appropriation last winter. As most of our readers, no doubt, know, the legislature granted it all that was asked for.

PROCEEDINGS OF SOCIETIES.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

MAY 5, 1873.

DIRECTOR W. S. W. RUSCHENBERGER, M.D., in the chair.

PRESENT, — Prof. J. Carson, and Drs. J. G. Hunt, F. W. Lewis, Tyson, Allen, McQuillen, Norris, Buckingham, and Richardson.

Dr. J. GIBBONS HUNT made a very interesting and useful verbal communication in regard to the use of extract of hæmatoxylon in the preparation of stainings of both animal and vegetable tissues. In the course of his remarks he stated that, after repeated experiments with the solution as recommended by Dr. J. W. S. Arnold, of New York, he had been led to modify the liquid by the addition of glycerin, which was found to render it much more satisfactory as a coloring material. The proportions which yielded, in his hands, the best results, were,—

Arnold's solution (of alum and ext. of hæmatoxylon),	f℥ss;
Glycerin,	f℥j;
Alcohol,	f℥j.

This fluid, which when poured out into a watch-glass for use should be perfectly transparent, resembles carmine in that it stains the nucleus of a cell very deeply; but it also faintly colors other portions of the cellular elements, of different degrees and tints. Like chloride of gold, it enables us to demonstrate the very finest net-works of non-medullated nerve-fibres running from nucleus to nucleus in the coat of an artery, and it possesses the great advantage over the auriferous salt, that after such staining of the nerve-tissue we can still study the ultimate structure of the nervous filaments.

Dr. HUNT observed that in vegetable histology hæmatoxylon had certain advantages over either aniline, carmine, or carthamus, among which he might mention the fact that when, as is too frequently the case, we overstain a specimen, this excess of color from hæmatoxylon may be in part removed by maceration in a weak acetic acid solution.

In conclusion, Dr. HUNT exhibited several exquisite specimens of hæmatoxylon stainings, and particularly invited a comparison of their value with that of a thin section from an example of cirrhosis of the liver from the Army Medical Museum at Washington.

After the meeting, Dr. HUNT also displayed the lines of dots upon a frustule of Pleurosigma angulatum under a $\frac{4}{10}$ inch objective, but magnified by the aid of an amplifier, draw-tube, and deep eye-piece 1800 diameters without serious loss of definition.

Dr. JAMES TYSON remarked that in his laboratory work, with the hæmatoxylon solution, as prepared according to Arnold's directions with alum and water, he had met with the same difficulties as his friend Dr. Hunt. Although he diluted the coloring liquid to one-fourth the strength recommended, he nevertheless found that specimens stained with it, whether mounted in oil of cloves or in damar, were ruined after a short time by the formation of octahedral crystals upon the under surface of the glass cover. In diluting the solution (Arnold's) with alcohol, he had several times found that a precipitate was formed; but this misfortune did not occur when water alone was employed.

Dr. HUNT suggested that the troublesome crystals which destroyed the value of these specimens were probably composed of alum, which, being insoluble in oil of cloves, was deposited on the surface of the glass.

REVIEWS AND BOOK NOTICES.

THE TREATMENT OF SYPHILIS WITH SUBCUTANEOUS SUBLIMATE INJECTIONS. By Dr. GEORGE LEWIN, Prof., etc. Translated by CARL PROEGLER, M.D., late Surgeon, etc., and E. H. GALE, M.D., late Surgeon, etc. Demi 8vo, pp. 249. Philadelphia, Lindsay & Blakiston, 1872.

The wide spread of syphilis among all classes, the dreadful suffering which it entails, and the proverbial tendency which it has to relapse, all combine to make the profession and the public hail with the utmost gladness any method of treatment which promises even a fair prospect of permanent cure. Hypodermic medication has assumed great importance within the last few years, and it is not at all strange that it has been proposed to treat constitutional syphilis in this way. Prof. Lewin has, probably, employed the method for a longer period and in a larger number of cases than any other living man, both in his private practice and in the Charité Hospital at Berlin. This fact gives his testimony an air of authority, and American physicians cannot but congratulate themselves that this work, notwithstanding its many short-comings, has been placed within their reach. The author, who claims to have originated this method of treatment, and to have introduced it into the Charité seven years ago, probably speaks of his results a little too enthusiastically; but his views are undoubtedly entitled to a careful consideration, especially as he tells us in his preface that he has treated more than two thousand patients by this method.

The injection is made in the usual way, and the author prefers to introduce the remedy beneath the skin of the subscapular and sacral regions. He selects these parts because he believes them to be less sensitive than others, and not because their power to absorb is greater. The injection seems to produce but little irritation, for, among one thousand patients treated by Prof. Lewin in private practice, he has had only one small abscess upon the fore-arm. This shows that the inconveniences to the patient cannot be very great; and indeed, according to the author's showing, they are not sufficient to form a reasonable objection to the treatment.

The local effects of this form of medication vary with the strength and quantity of the solutions employed. Prof. Lewin uses three of these: one three, another four, and the other six grains to the ounce of distilled water; and he injects from one-tenth to three-eighths of a grain of the remedy (p. 19).

In his description of the symptoms produced by the hypodermic injection of the medicine (p. 25) it is interesting to note that the ordinary effects of mercury are sometimes rapidly produced by the bichloride when it is administered in this way. It is evident from his own statements that these have been severe in some cases. The patients not only presented the ordinary symptoms of salivation, but when the dose was large the medicine acted as a powerful irritant, producing profound depression with symptoms of gastro-enteritis. The resemblance of "acute sublimate intoxication," as the author calls it, to the effects of corrosive sublimate when taken into the stomach, is very striking, and is almost sufficient to make one wonder whether the advantages of hypodermic medication are not somewhat overrated.

It has been said that salivation is produced with difficulty by the internal administration of the bichloride of mercury. This does not seem to be the case when it is administered by hypodermic injection; for many of Dr. Lewin's patients were salivated by it, since he states (p. 28) that mercurial stomatitis occurred in 144

of 256 women thus treated, and that in 79 of these the use of the medicine had to be stopped on account of the mouth-affection. We are not at all surprised at this, for the author certainly employs large doses of the drug. A considerable experience has led the writer to believe that few patients will bear much over one-twelfth of a grain, three times daily, by the stomach, while we find Prof. Lewin often gives three-eighths of a grain at a single dose. True, this is administered but once daily, as a rule; but the quantity seems to us to be large in proportion to that which should be used by the mouth.

This opinion is supported by the statements of the author, and a critical examination of the cases which he reports. He says (p. 26) the sublimate "often very quickly" salivates, and that he has frequently noticed the appearance of the symptoms of salivation "after a few hours only." As this effect does not promote but may rather retard the cure, we think that the dose should generally be smaller than those ordinarily injected by Prof. Lewin.

The results obtained by the author certainly appear to be very favorable to the administration of mercurials by hypodermic injection. His patients seem to have been relieved quickly, while among them relapses do not appear to have been so frequent as when the mercury is administered by the mouth or the patient treated by other methods.

We cannot dismiss the consideration of this work without saying something in regard to the manner in which the translators have done their part. Whenever a translated German book is put upon our table we expect to find it rather heavy, and with certain peculiarities of expression which are unavoidable. We are content now and then to pore over a sentence for some time to find its exact meaning; but even in these cases we expect to meet with good English. Such, however, is not true in the present instance. With a more sad jumble of bad grammar and atrocious language it has never been our fortune to meet; and, for the credit of our profession in this country, we hope that Prof. Lewin does not understand our tongue, and, if he does, for the sake of his own feelings we most sincerely desire that this execrable translation of his book may never fall into his hands. So poorly have these gentlemen done their work that the very first sentence in the book sounds most harsh, while the second is enough to make us close it forever. There is hardly a page in it that does not show the want of the proof-reader; whilst the volume is teeming with grammatical errors. These faults are bad enough in the work of an English author, but they detract much more from the translation of one the original language of which is somewhat peculiar and difficult at best to render into smooth English.

We do not consider the publishers blameless in putting this translation of Prof. Lewin's work before the medical public. The enterprising firm which issued it usually does things in good style. Of this book, however, they have every reason to be thoroughly ashamed. A few glances at the proof-sheets would have made them acquainted with the glaring literary errors of the translation. To see these, a professional education was not necessary; and if the book proves a financial failure they have themselves to blame. It will not be because it has no merit and was not needed, but simply because the English version of it has been so abominably prepared.

Conium in the Treatment of Insanity. By Daniel H. Kitchen, M.D., Assistant Physician of the New York State Lunatic Asylum.

In this article, reprinted from the April number of the *American Journal of Insanity*, the author strongly advocates the use of conium in cases of acute mania not dependent upon organic lesion of the brain, and especially in those cases characterized by unusual restlessness and muscular activity. He agrees with Harley in limiting the action of the drug to the motor centres, chiefly to the corpora striata, and does not attribute to it any direct hypnotic effect or any appreciable influence upon the secretions.

Quoting from Dr. J. W. Burman, who experimented at the West Riding Lunatic Asylum, he says, "Conia acting upon the purely motor centres in a sedative manner, and morphia acting in a similar way upon the sensori-motor and ideo-motor centres, it follows as a fair corollary that the combination of the two should lead to effects directly antagonistic to the condition of maniacal excitement; and, such being in fact the case, they may be thus used together with very great success in the treatment of cases of mania."

He details twelve cases of mania, arising from various causes, which were treated with conium, and in all of which its administration was followed by immediate and marked improvement and ultimate cure. In several of them bromide of potassium, chloral hydrate, and other nervines had entirely failed to relieve the wakefulness and excitement, which at once disappeared under full doses of conium. He has used it in epilepsy, hysteria, facial erysipelas, dysmenorrhœa, sciatica, etc., always observing the same results,—relief of motor irritability and consequent amelioration of the general condition. Of the different preparations he prefers the fluid extract, in doses of from twenty minims to one drachm, according to the motor activity of the patient, and has found the best vehicle to be ice-cold water.

The Treatment of Whooping-Cough with Quinine. By B. F. Dawson, M.D., Clinical Lecturer on the Diseases of Children in the Medical Department of the University of New York, etc., etc. New York, William Wood & Co., 1873.

In this little pamphlet, reprinted from the *American Journal of Obstetrics and Diseases of Women and Children*, the author reports eight cases of pertussis occurring in his practice and treated exclusively with quinine, administered according to the following rules:

"1. Give the quinine (sulphate or hydrochlorate) dissolved by acid in pure water only. For children under three years, from grs. v to grs. viii, and for older children and adults, from grs. x to grs. xii, to the ounce. 2. Give not less than a teaspoonful every single, or, at the longest, every two hours during the day, and whenever cough comes on in the night. 3. Give nothing afterwards for some minutes to destroy the taste or to wash out the mouth. 4. Continue giving it notwithstanding the first dose may be vomited. 5. Be sure that the quinine is pure and thoroughly dissolved."

He asserts that by following this plan he has rarely failed in promptly and completely removing the spasmodic element of the affection, the time required varying from one to twenty days. He supposes that the drug acts by attacking and destroying the "fungoid growth in the epithelium of the air-passages," which, with Prof. Letzerich, he believes to be the cause of the convulsive paroxysms of coughing. He also attributes some of the beneficial effects of the quinine to its sialagogue action, the increased buccal and salivary secretions softening and dislodging the accumulated mucus. For both these reasons he insists, as above, upon its administration in solution, and at short intervals, and accounts for its failure in previously reported cases by its having been given in large doses or in pills. The cough which frequently remains after the "whooping" has ceased must be treated as an ordinary bronchial catarrh.

GLEANINGS FROM OUR EXCHANGES.

On the Use of Artificial Respiration and Transfusion as a Means of Preserving Life (*British Medical Journal*, May 17, 1873).—Dr. T. Lauder Brunton, of St. Bartholomew's Hospital, presents, in an interesting and valuable paper, a review of various important physiological experiments and observations, and shows how they may be utilized in the treatment of disease. Quoting Huxley, he says, "Life has but two legs to stand upon,—the lungs and the heart; for death through the brain is always the effect of the secondary action of the injury to that organ upon the lungs or the heart." The experiments of the Abbé Fontana, Legallois, and Brown-Séquard have shown that headless trunks, isolated portions of the body, or the head alone, may be kept alive, or even restored to life, by a proper supply of oxygenated blood, and not only have nerves and muscles been made to retain vitality, but livers have secreted bile and lungs excreted carbonic acid hours after they were excised from the body.

A point of great practical importance is that the parts do not all die at the same time, and, as the brain and spinal cord generally die first, the heart may pulsate regularly after all respiratory movements have ceased and consciousness and reflex action are entirely lost. If, under such circumstances, respiration be kept up artificially, the heart continues beating, and the circulation of arterial blood through the brain may gradually restore its power, respiration recommence, and life be securely re-established. Schiff's experiments have demonstrated that animals may be kept alive, after almost entire destruction of the medulla, or after the injection of water under high pressure into the cranial cavity. Hence it is evident that we may hope for the best results from the use of artificial respiration in some of those cases of apoplexy where an extravasation almost instantly arrests the respiratory movements, either directly, by destroying a part of the medulla, or indirectly, by causing compression of the brain.

In poisoning by woorara, hydrocyanic acid, strychnia, etc., as well as by the bites of snakes, artificial respiration is invaluable as the only means of affording time for the excretion of the toxic agent. Where the poison exists in large quantities, or is excreted very slowly, requiring hours or even days before it can be got rid of, the obvious plan of treatment would be to remove the poison along with the blood in which it is circulating, instead of waiting for its slow removal by the emunctories; and here transfusion comes to the aid of artificial respiration.

Dr. Brunton details some cases where this method of treatment was followed by almost veritable resurrection. Alluding to the objections raised by Larry to the employment of lambs' or calves' blood when human blood cannot be obtained, he states that there is no physical reason why it should not be used, and concludes by remarking that "the risk of injuring a man's character, or that of his descendants, by transfusion of an animal's blood, is not for an instant to be weighed in the balance against the chance of saving his life in those cases where alone the operation would be performed."

Septicæmia and the Catheter (*British Medical Journal*, April 19, 1873).—Dr. David Ferrier, of King's College, in a short paper endeavors to show that the ammoniacal decomposition of the urine met with in retention is not the result of a fermentative action of the vesical mucus, but is attributable to the growth and multiplication of microscopical organisms, generally introduced during catheterization. To prove that urine in itself, apart from such contamination, is not liable to decomposition, he introduced a small quantity into a flask previously purified by heat, inserted a plug of cotton wool, and set it aside for a year, during which time it remained clear. The simple bringing into contact with the urine a surface not freed from germs, as an ordinary glass rod, was found sufficient to initiate ammoniacal putrefaction. He does not deny that in a catarrhal state of the urethra germs may gain access to the bladder precisely as spermatozoids pass through the cervical mucus in impregnation; but asserts that in ordinary conditions of the urinary passages the bladder is closed against them, and adduces cases where the introduction of the catheter was immediately followed by a change in the character of the urine, and subsequently by uræmic poisoning and death. Such cases are, of course, not those where the bladder can be readily and entirely emptied, but where, from atony, paralysis, or enlarged prostate, there is more or less complete retention of urine. He adds, that if the simple precaution were taken of using carbolic acid oil, instead of ordinary oil, for lubricating instruments passed into the bladder, we would have less cystitis and fewer cases of "surgical kidney."

Successful Transplantation of a Rabbit's Conjunctiva and its Adaptation to the Human Eye.—J. R. Wolfe, of Glasgow, reports the case of a foundry-man 31 years of age, where, in consequence of a severe burn from a mass of red-hot iron, there had resulted an extensive symblepharon, gluing the lower lid firmly to the ball in such a position that its ciliary border covered the upper edge of the pupil. Six weeks after the injury, when the inflammation had entirely subsided, Dr. W. dissected the lower lid from its attachments to the ball, and, to prevent its readhering, sutured on the raw surface thus produced the conjunctiva which he then dissected from the eye of a rabbit. (The animal was under the influence of chloroform, and the part selected was that covering the nictitating membrane.) The eye was dressed with dry charpie and a compressive bandage. On the day following, the transplanted conjunctiva had a grayish aspect, and warm fomentations were ordered. On the second day the eye was swollen and very painful, but the conjunctiva had lost its gray hue and become vascular. On the eighth day he was discharged cured, the eyeball freely movable and the transplanted conjunctiva healthy and adherent throughout. A few days subsequently, an iridectomy was successfully performed at the upper inner quadrant of the cornea, with the result of restoring him useful eyesight. The patient was seen two months subsequently, and the condition of the eye was still entirely satisfactory.

The author then gives a second, somewhat similar case, with equally favorable result.—*Glasgow Medical Journal*, 1873.

Albuminuria and Hæmaturia from Embolism in the Minute Blood-vessels of the Kidney (*British Medical Journal*, May 24, 1873).—Dr. George Johnson, of King's College, London, in a recent lecture on Bright's disease, alludes to valvular disease of the heart as a not infrequent cause of albuminous or even bloody urine by the production of renal embolism. The circulation through the renal capillaries being arrested, an albuminous and fibrinous exudation takes place into the uriniferous tubes, which subsequently becomes fatty and is absorbed, leaving a depressed cicatrix on the surface of the kidney.

Alluding to the uncertainty of the diagnosis of embolism in the renal vessels, he adds, "We may suspect the occurrence when, with the physical signs of aortic or mitral disease, without great impediment of the general circulation, the urine suddenly becomes albuminous or bloody. In some cases, extensive em-

bolism in one or both kidneys has been attended with severe lumbar pains, a scanty secretion of urine, and vomiting; but, when the obstructed portions of kidney are small, there may be no symptoms to indicate the occurrence of embolism."

The Tubercular Ulcer in the Larynx (Wahlberg: *Wien. Med. Jahrb.*, 1872, Heft 3, 238–247).—An examination of a large number of larynges of phthisical patients has led the author to the conclusion that the so-called tubercular ulcers of the larynx result from the disintegration of mucous or sub-mucous tubercles. Fine cuts of the mucous membrane hardened in chromic acid showed at the points of the most recent tubercles, which had only produced a prominence, and not a defect of the surface, a very fine, small-celled infiltration, which attained its maximum in the vicinity of the ducts of the mucous glands. After pencilling out these round cells, a net-work was seen, coarser and denser according to the age of the tubercle; its meshes, formed partly out of spindle-cells and partly out of a tough fibrous tissue, were scantily supplied with blood-vessels. The centre of this reticulum was taken up by a round heap of an opaque, finely granular mass, which the author, without giving any special characteristics, describes as tubercle.

As the more and more attenuated epithelial covering of the tubercle becomes destroyed and perforated, the tubercular ulcer is produced, whose basis is constituted by the progressively spreading destruction of the new cellular growth. Upon the edges of the ulcer are frequently seen papillary prominences of the mucous membrane, with cylinder-like proliferations of the epithelial covering.

Changes produced in the Liver by a High Temperature (*Lancet*, May 17, 1873).—At the regular meeting of the Pathological Society of London, Dr. Wickham Legge exhibited some microscopical sections of the liver of rabbits killed after an exposure of from six to twelve hours to a temperature of 105°. In all the animals the livers were found very dry, but little blood exuded from a cut surface, and the acini were indistinct. The liver-cells were filled with fine granular contents, so that in some cases the nucleus was invisible. Dr. Legge remarked that it was well known that parenchymatous degenerations of the liver were far more common than was formerly supposed. Excluding phosphorus-poisoning, acute yellow atrophy, and cases akin thereto, this finely granular condition of the cells had been chiefly met with where a high temperature had been noted; but no experimental proof whatever had existed that it was due to this cause. The cloudy swelling of the kidney in febrile diseases had long ago been noticed; but probably in patients dying from diseases attended with high temperature the liver suffers far more than the kidneys, and far more commonly.

Methylene Ether as an Anæsthetic (*British Medical Journal*, March 29, 1873).—Dr. J. O. Brookhouse details seven cases in which methylene ether was given as an anæsthetic. The average quantity required to produce insensibility was two and a half drachms, the average time between three and four minutes. In conclusion, he says, "It appears clearly, therefore, from these cases, that this ether is a direct paralyzer of the heart, and not certainly in any less degree than chloroform. This, indeed, so far as I can judge, is its only objection; whilst in many ways it possesses advantages. It is quicker in its action and time of recovery. Sickness, although almost always present, is not so persistent; and the patient does not complain of feeling so altogether 'seedy.' It does not blister the skin."

Extreme Depression and Paralysis produced by Hydrate of Chloral.—Henry J. Manning details (*Lancet*, May 17, 1873) two cases of monomania with exacerbations of excitement and obstinate sleeplessness, in which the administration of chloral was attended with very alarming symptoms. In one case, an elderly man, who had taken five grains twice daily and thirty grains on alternate nights for about two months, became so weak and depressed that he was unable to make the slightest exertion, and suffered from partial loss of muscular power in the lower limbs.

In another case, ten grains twice daily, with forty grains on alternate nights, produced in three weeks the same condition, with cold surface, fluttering pulse, and complete paralysis of the lower limbs.

In neither case was there any loss of sensation or any hyperæsthesia.

Liq. strychniæ was prescribed, and in a few days both patients regained their usual condition.

Sponge-tent in Epistaxis.—Dr. James Young (*British Medical Journal*, May 17, 1873) recommends the use of sponge-tent in cases of bleeding from the nose, and gives the following method of preparation: "Have a long piece of fine sponge, dipped in a solution of gum, compressed with twine, dried; and, after the twine has been unrolled, the sponge is thickly coated over with white wax. This is easily passed along the floor of the nostril, leaving a piece of red tape for extraction. The tent may remain for six hours, and must be gently rotated before extraction, to prevent fresh hemorrhage."

The Heart, in a Case of Poisoning by Arsenic.—Surgeon E. O. Tandy reports (*Indian Medical Gazette*, Calcutta, March 1, 1873) a case where a post-mortem made twenty-six hours after death, the subject being well nourished and in perfect preservation, disclosed extravasations of bluish blood in the muscular structure and columnæ carneæ of the left ventricle, with no signs of inflammation and a healthy endocardium. Death was subsequently found to have resulted from the criminal administration of arsenic.

Artificial Fibrin as a Dietetic Substance.—Dr. John Goodman (*British Medical Journal*, May 17, 1873) calls attention to a substance formed by exposing albuminous material, as an ordinary hen's egg, to the action of cold water for about twelve hours, and then boiling. He calls the product "artificial fibrin," and declares it to be unparalleled in its qualities of lightness, nutrition, and digestibility, and invaluable in cases of feeble alimentation where rejection of food forms a prominent feature.

MISCELLANY.

We are informed that Prof. Pancoast has resigned the chair of anatomy at the Jefferson Medical College. Dr. William Thomson, well known as the author of some highly original contributions to eye-surgery, has been elected to the position of clinical lecturer on diseases of the eye in the same institution.

Rules for the Management of Infants during the Hot Season.—*Rule* 1.—Bathe the child once a day in tepid water. If it is feeble, sponge it all over twice a day with tepid water, or with tepid water and

vinegar. The health of a child depends much upon its cleanliness.

Rule 2.—Avoid all tight bandaging. Make the clothing light and cool, and so loose that the child may have free play for its limbs. At night undress it, sponge it, and put on a slip. In the morning remove the slip and dress the child in clean clothes. If this cannot be afforded, thoroughly air the day-clothing by hanging it up during the night. Use clean diapers, and change them often. Never dry a soiled one in the nursery or in the sitting-room, and never use one for a second time without first washing it.

Rule 3.—The child should sleep by itself in a cot or cradle. It should be put to bed at regular hours, and be early taught to go to sleep without being nursed in the arms. Without the advice of a physician, never give it any *spirits, cordials, carminatives, soothing-syrups, or sleeping-drops. Thousands of children die every year from the use of these poisons.* If the child frets and does not sleep, it is either hungry or ill. If ill, it needs a physician. Never quiet it by candy or cake; they are the common causes of diarrhœa, and of other troubles.

Rule 4.—Give the child plenty of fresh air. In the cool of the morning and evening send it out to the shady sides of broad streets, to the public squares, or to the Park. Make frequent excursions on the rivers. Whenever it seems to suffer from the heat, let it drink freely of ice-water. Keep it out of the room in which washing or cooking is going on. It is excessive heat that destroys the lives of young infants.

Rule 5.—Keep your house sweet and clean, cool and well aired. In very hot weather let the windows be open day and night. Do your cooking in the yard, in a shed, in the garret, or in an upper room. Whitewash the walls every spring, and see that the cellar is clear of all rubbish. Let no slops collect to poison the air. Correct all foul smells by pouring carbolic acid or quicklime into the sinks and privies. The former article can be got from the nearest druggist, who will give the needful directions for its use. Make every effort yourself, and urge your neighbors, to keep the gutters of your street or court clean.

Rule 6.—*Breast-milk is the only proper food for infants.* If the supply is ample, and the child thrives on it, no other kind of food should be given while the hot weather lasts. If the mother has not enough, she must not wean the child, but give it, besides the breast, goat's or cow's milk, as prepared under Rule 8. Nurse the child once in two or three hours during the day, and as seldom as possible during the night. Always remove the child from the breast as soon as it has fallen asleep. Avoid giving the breast when you are overfatigued or overheated.

Rule 7.—If, unfortunately, the child must be brought up by hand, it should be fed on a milk-diet alone, and that, warm milk out of a nursing-bottle, as directed under Rule 8. Goat's milk is the best, and next to it, cow's milk. If the child thrives on this diet, *no other kind of food whatever should be given while the hot weather lasts.* At all seasons of the year, but especially in summer, there is no safe substitute for milk to an infant that has not cut its front teeth. *Sago, arrow-root, potatoes, corn-flour, crackers, bread, every patented food, and every article of diet containing starch, cannot and must not be depended on as food for very young infants.* Creeping or walking children must not be allowed to pick up unwholesome food.

Rule 8.—Each bottle-full of milk should be sweetened by a small lump of loaf-sugar, or by half a teaspoonful of crushed sugar. If the milk is known to be pure, it may have one-fourth part of hot water added to it; but, if it is not known to be pure, no water need be added. When the heat of the weather is great, the milk may be given quite cold. Be sure that the milk is unskimmed; have it as fresh as possible, and brought very early in the morning. Before using the pans into which it is to be poured, always scald them with boiling suds. In very hot weather, boil the milk as soon as it comes, and at once put away the vessels holding it in the coolest place in the house,—upon ice if it can be afforded, or down a well. Milk carelessly allowed to stand in a warm room soon spoils, and becomes unfit for food.

Rule 9.—If the milk should disagree, a tablespoonful of lime-water may be added to each bottleful. Whenever pure milk cannot be got, try the condensed milk, which often answers admirably. It is sold by all the leading druggists and grocers, and may be prepared by adding, without sugar, one teaspoonful, or more, according to the age of the child, to six tablespoonfuls of boiling water. Should this disagree, a teaspoonful of arrow-root, of sago, or of corn-starch to the pint of milk may be cautiously tried. If milk in any shape cannot be digested, try, for a few days, pure cream diluted with three-fourths or three-fifths of water,—returning to the milk as soon as possible.

Rule 10.—The nursing-bottle must be kept perfectly clean; otherwise the milk will turn sour, and the child will be made ill. After each meal it should be emptied, rinsed out, taken apart, and the tube, cork, nipple, and bottle be placed in clean water, or in water to which a little soda has been added. It is a good plan to have two nursing-bottles, and to use them by turns.

Rule 11.—Do not wean the child just before or during the hot weather, nor, as a rule, until after its second summer. If suckling disagrees with the mother, she must not wean the child, but feed it in part, out of a nursing-bottle, on such food as has been directed. However small the supply of breast-milk, provided it agrees with the child, the mother should carefully keep it up against sickness: it alone will often save the life of a child when everything else fails. When the child is over six months old, the mother may save her strength by giving it one or two meals a day of stale bread and milk, which should be pressed through a sieve and put into a nursing-bottle. When from eight months to a year old, it may have also one meal a day of the yolk of a fresh and rare-boiled egg, or one of beef- or mutton-broth into which stale bread has been crumbled. When

older than this, it can have a little meat finely minced; but even then milk should be its principal food, and not such food as grown-up people eat.

For the convenience of mothers, the following receipts for special forms of diet are given:

Boiled Flour, or Flour Ball.—Take one quart of good flour, tie it up in a pudding-bag so tightly as to get a firm, solid mass, put it into a pot of boiling water early in the morning, and let it boil until bedtime. Then take it out and let it dry. In the morning, peel off from the surface and throw away the thin rind of dough, and, with a nutmeg-grater, grate down the hard dry mass into a powder. Of this from one to three teaspoonfuls may be used, by first rubbing it into a paste with a little milk, then adding it to about a pint of milk, and, finally, by bringing the whole to just the boiling point. It must be given through a nursing-bottle.

An excellent food for children who are costive in their bowels may be made by using bran-meal or unbolted flour instead of the white flour, preparing it as above directed.

Rice-Water.—Wash four tablespoonfuls of rice, put it into two quarts of water, which boil down to one quart, and then add sugar and a little nutmeg. This makes a pleasant drink.

A half-pint or a pint of milk added to this, just before taking it from the fire, and allowed to come to a boil, gives a nourishing food suitable for cases of diarrhœa.

Sago, tapioca, barley, or cracked corn can be prepared in the same manner.

Beef-Tea.—Take one pound of juicy, lean beef,—say a piece off of the shoulder or the round,—and mince it up with a sharp knife on a board or a mincing-block. Then put it with its juice into an *earthen* vessel containing a pint of tepid water, and let it stand for two hours. Strain off the liquid through a clean cloth, squeezing well the meat, and add a little salt. Place the whole of the juice thus obtained over the fire, but remove it as soon as it has become browned. Never let it boil; otherwise most of the nutritious matter of the beef will be thrown down as a sediment. Prepared in this way, the whole nourishment of the beef is retained in the tea, making a pleasant and palatable food. A little pepper or allspice may be added if preferred.

Mutton-tea may be prepared in the same way. It makes an agreeable change when the patient has become tired of beef-tea.

Raw Beef for Children.—Take half a pound of juicy beef, free from any fat; mince it up very finely; then rub it up into a smooth pulp either in a mortar or with an ordinary potato-masher. Spread a little out upon a plate and sprinkle over it some salt, or some sugar, if the child prefers it. Give it with a teaspoon or upon a buttered slice of stale bread. It makes an excellent food for children with dysentery.

At a meeting of the Obstetrical Society of Philadelphia, held April 3, 1873, the undersigned committee was appointed "to consider the Causes and the Prevention of Infant Mortality during the Summer Months." The foregoing rules, drawn up by this Committee, were revised and adopted by the Society at a meeting held May 1, 1873, and ordered to be published.

Dr. William Goodell, *Chairman*,
Dr. J. Forsyth Meigs,
Dr. John L. Ludlow,
Dr. Albert H. Smith,
Dr. John S. Parry,
Dr. William F. Jenks.

The London *Lancet* says, editorially, "We have received a most touching proof of the great progress and the wide diffusion of sanitary science. It is in the shape of the circular of a candidate for the office of inspector of nuisances; and we cannot find in our hearts to withhold any portion of it from our readers. It runs thus:—

"'Sir,—Being a candidate for the office of inspector of nuisances, I beg to make a few remarks. Having for many years made the science of hygiene, or the guide to health, my especial study for the human family, I have been trying to carry it out; for in my rounds, which comprise a district of about twenty miles in * * * * * * as a hair-cutter, etc., among gentlemen's and farmers' families, I make it my duty to explain, whenever I have an opportunity, the importance of sanitary improvements, especially among the dwellings of poor people in crowded and ill-ventilated houses—almost forming districts of pollution—from which places mostly emanate miasma and effluvia producing blood-poison, which flies like fire, and ends in fever, smallpox, and other diseases, which is taken up and dropped by dews in healthy places, thereby producing endemic which sometimes ends in epidemic, almost as a plague, which was the case last year, puzzling even the faculty itself to know how it originated. I think those beautiful subjects ought to be the main lever or work of a sanitary officer's duty; and, if elected, I should do my utmost to rid places of the filth, and try more particularly to prevent surface-drainage (and this is most important) in places where many poor people have to get their drinking-water; I believe from this source emanate most of our fever cases.

"'At the election I should be most happy to be severely catechised as to my proficiency as a candidate.

"'Trusting to your vote, I beg to remain, sir, yours obediently, —— ——, Hair-dresser.'

"We need hardly say that we wish the gentleman every possible success in his candidature, and hope that his meritorious efforts for the good of his neighbors may for the future be continued with the advantages of official position and authority. Our only fear for him is that the officials at Gwydyr House may dread lest he should know too much, and may refuse to sanction his appointment out of consideration for the feelings of the gentlemen who might be called upon to 'inspect' his work. It is bad enough to have to deal with doctors who understand what they are about; but to have inspectors of nuisances of the same character would surely be more than Poor-law flesh and blood could bear."

CULTIVATION OF CINCHONA IN INDIA.—From the annual report made by Mr. George King, M.B., Superintendent of Botanical Gardens, and in charge of cinchona cultivation in Bengal, we glean the following particulars regarding the year's operations. During that period 166,285 plants of *cinchona succirubra*, and 44,500 of *cinchona calisaya*, have been added to the permanent plantation. Propagation has been carried on vigorously, the seed and nursery beds containing at least 600,000 young plants of the former and 147,500 of the latter species. The plantations of young trees have been thoroughly inspected, and weakly trees cut out. The bark from these, together with that obtained from the prunings of other trees, amounted to 116,000 pounds (equal to about 39,000 pounds of dry bark). Of this some 7000 pounds were sold at auction in London, realizing an average of one shilling and fivepence per pound. The total number of plants, cuttings, and seedlings at present growing on the plantation is 2,394,799. Of these two millions belong to *C. succirubra*, and the remainder to five other species. Regarding the cultivation of cinchona in India, Dr. King thinks its production as a crop cannot fairly be considered, as yet, beyond the condition of an experiment. "It has, indeed, been demonstrated that cinchona-trees can be grown successfully up to the age of about ten years, and that their bark is quite as rich in alkaloids as that obtained from the South American forests; but whether they will reach maturity remains to be seen. It is still to be settled how the bark crop can most advantageously be taken, and the respective merits of the systems of mossing as invented and practised by Mr. McIvor, of systematic coppicing, and of working forest-fashion by selection and thinning, cannot be determined without much additional experience. Connected with the commercial aspect of the matter, there are, as unsettled problems, the probable extent to which the price of the drug will be affected by the introduction into the European market of the large quantities of bark which must soon begin to be turned out by the various Indian and colonial plantations that have been established, the amount by which the demand for preparations of cinchona will be increased by the fall in their price which is almost certain to take place, and, finally, the advantages or disadvantages of the manufacture of an amorphous preparation at the plantation as opposed to the complete separation of alkaloid in a pure form, or to the more primitive plan of exporting all the bark to England and of taking prepared alkaloids in exchange as part payment."—*Canadian Pharm. Jour.*

MONTEVIDEO is again being decimated by yellow fever. Unadmonished by bitter experience or by the recent disastrous epidemic in Buenos Ayres, the inhabitants still allow cesspools to honeycomb the sites of their houses. They have fled in great numbers.

THE Sultan of Turkey retains the exclusive services of a lady physician—a New Hampshire lady, who graduated in Philadelphia—to attend the females and children of his household.

KILLED AT HIS POST.—Mr. Lutwidge, the Commissioner in Lunacy who, while visiting an asylum near Salisbury, was stabbed in the right temple by one of the patients, died on the evening of the 28th ult., a few minutes before the arrival from London of Sir James Paget. The fatal blow was inflicted with a long nail, and was followed by a paralytic affection, from which he never rallied.

WEEKLY RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FOR THE WEEK ENDING SATURDAY, JUNE 14, 1873.

DISEASES.	*Adults.*	*Minors.*	DISEASES.	*Adults.*	*Minors.*
Abscess	1	...	Fatty Degene'n of Heart	1	...
Anæmia	1	...	Fever, Scarlet	...	6
Apoplexy	4	...	" Typhoid	6	2
Asphyxia	1	1	Fracture of the Spine	1	...
Burns and Scalds	...	2	Hooping-Cough	...	1
Cancer	1	...	Inanition	...	4
" of Jaw	...	1	Inflammation of Bladder.	1	...
" Liver	1	...	" Brain	...	5
" Stomach	2	...	" Bronchi	1	4
Casualties	1	2	" Lungs	1	4
Cerebro-Spinal Meningitis	1	4	" Peritoneum	1	1
Cholera Infantum	...	7	" Stomach & Bowels	3	4
Cirrhosis of Liver	2	...	Intemperance	1	...
Congestion of Bowels	1	...	Jaundice	...	1
" Brain	1	2	Mania a potu	1	...
Consumption of Lungs	31	1	Malformation	...	1
Convulsions	1	10	Marasmus	...	12
Croup	...	2	Measles	...	1
Cyanosis	...	1	Neuralgia of the Heart	2	...
Debility	13	3	Old Age	5	...
Diarrhœa	...	1	Paralysis	5	...
Diphtheria	...	2	Poisoning	...	1
Disease of Brain	2	...	Pyæmia	1	...
" Heart	6	...	Smallpox	1	...
" Kidneys	2	...	Softening of Brain	1	...
" Liver	1	...	Still-Born	...	21
Dropsy	3	1	Suicide	2	...
" of Brain	...	2	Syphilis	...	1
" Chest	2	...	Teething	...	1
" Heart	...	1	Tetanus	1	1
" Lungs	...	1	Tumors	1	...
Drowned	1	1	Ulceration of Throat	...	1
Dysentery	1	1	Unknown	...	1
Effusion on Brain	1	1	Wounds, Gunshot	1	...
Emphysema of Lungs	1	...			
Epilepsy	1	...			
Erysipelas	...	2			
			TOTALS	120	122

METEOROLOGICAL OBSERVATIONS TAKEN AT THE SIGNAL OFFICE, PHILADELPHIA, DURING THE WEEK ENDING SATURDAY, JUNE 14, 1873.

Month and Day.	*Barometer. Daily Mean*	*Thermom. Daily Mean*	*State of Weather.*	*Rain. In.*
JUNE.				
Sunday 8th	30.24	63	Clear.	.....
Monday 9th	30.10	68	Clear.	.....
Tuesday 10th	29.96	72	Fair, Cloudy.	.....
Wednesday 11th	29.98	74	Cloudy.	.01
Thursday 12th	30.12	70	Fair.	.02
Friday 13th	30.15	64	Fair.	.....
Saturday 14th	29.98	63	Cloudy, Fair.	.....
Means	30.07	68		.03

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JUNE 10, 1873, TO JUNE 16, 1873, INCLUSIVE.

MEACHAM, FRANK, ASSISTANT-SURGEON.—Granted leave of absence for thirty days. S. O. 118, A. G. O., June 12, 1873.

SATURDAY, JUNE 28, 1873.

ORIGINAL COMMUNICATIONS.

CASES OF CEREBRO-SPINAL FEVER, WITH REMARKS.

BY JAMES H. HUTCHINSON, M.D.,
Attending Physician to the Pennsylvania Hospital.

DURING the last three months eight cases of this disease have been admitted into the medical wards of the Pennsylvania Hospital. Of these, six have proved fatal, one has ended in recovery, and one is still under treatment. The patient remaining in the ward is now fully convalescent, but the percentage of mortality has been so great, that there is reason to believe that the epidemic at present prevailing in the city, if not wide-spread, is very fatal in its character. The disease does not, however, seem to be confined to any particular locality, for the four patients who were under my immediate care, and whose histories I shall presently report, came from very different parts of the city. One had recently arrived from New York, and was taken sick on board ship. Another lived at Twenty-fourth and Lombard, a third at 315 South Seventh Street, and the last was attacked while at a sailors' boarding-house in the lower part of the city.

Most of the symptoms described by authors who have written upon this disease were present in the cases treated by me. In only one case, however, was there any eruption, and in this case, although said to have been distinct at one time, it was fading when the patient came under my care. The absence of the eruption in a large number of cases certainly justifies the abandonment of the name of spotted fever, by which the disease is even yet familiarly known. It is not, however, sufficient to authorize the removal of the disease from the class of general diseases to that of local inflammations: it is, therefore, satisfactory to find that the Committee on Nomenclature of the American Medical Association propose the name of cerebro-spinal fever, a name which at the same time indicates the general characters of the disease and the seat of the principal local lesions.

It is, unfortunately, too true that cerebro-spinal fever seems to be little amenable to treatment. In the first two cases quinine in twelve-grain doses was given, apparently without much effect upon either the pulse or temperature. The bromide of potassium, which was used in all the cases, seemed to have the power of diminishing the headache and restlessness, but exerted no further control over the disease. Opium in moderate quantities was resorted to in one of the cases, but its use was soon abandoned because it apparently increased the tendency to stupor. The most marked results followed the application of wet cups and of ice to the nape of the neck. In the single case in which they were used there was no subsequent complaint of pain. The long-continued use of ice is, however, not unattended with inconvenience; for after it had been applied for a few days the ears of the patient were found to be slightly frosted. In Case No. 4 ergot was prescribed, in the hope that, the inflammatory condition of the membrane of the brain and spinal cord having subsided, there remained only a congested condition of the vessels, which would be overcome by its use. Stimulus was ordered only when the general prostration of the system seemed to demand it. It was never given in the early stages of the disease. Remissions occurred in two of the cases. In the first case the subsidence of the febrile symptoms and of the pain, and the diminution of the mental hebetude, were so marked that I was twice led to believe that the patient was about to enter upon convalescence.

In the three cases in which death occurred and post-mortem examinations were made, in addition to the marked changes found within the cranium and spinal canal, alterations in color and diminution in consistence of the liver and spleen were very noticeable features; and this goes far to confirm the view that, while the lesions of the cerebral and spinal membranes are an essential part of the disease,—as essential perhaps as the pustular eruption in variola or the ulceration of Peyer's patches in enteric fever,—they do not in themselves and alone constitute the disease.

Case I.—Intense Headache—Violent Delirium—Retraction of Head—Death in Four Weeks—Injection of Membranes of the Brain and Spinal Cord.

P. G., æt. 28, born in England, a sailor, and unmarried, was admitted into the medical wards March 15, 1873.

The following history was obtained. About an hour or two before admission, he was seized with severe headache, and soon afterwards became violently delirious. He did not have a chill or convulsion. On admission the patient is semi-comatose, the pupils are contracted and do not respond promptly to light, and the neck is slightly retracted and rigid. He has fever, but a slow pulse, less than 60 in the minute. A loud but soft systolic murmur is heard over the heart, having its point of greatest intensity at the apex. There is no eruption of any kind visible. The urine, upon examination, was found to be acid, to have a specific gravity of 1036, to contain a trace of albumen, but no tube-casts.

March 16.—The patient was so noisy and restless last night as to make it necessary to remove him from the ward to the cells, and to strap him to the bed. His headache gives him the appearance of stupor, and renders him indisposed to be disturbed; but when roused he answers questions correctly, although slowly. The tongue is heavily coated with a soft velvety fur, but is moist; the bowels are loose, probably the effect of the croton oil given him by the resident physician who received him. The face is dusky, and the capillary circulation everywhere very sluggish. He was ordered twelve grains of sulphate of quinine daily, and twenty grains of bromide of potassium, three times a day, with a sufficient quantity of beef-tea.

March 17.—Cerebral symptoms unchanged; bowels are no longer loose. Neck still rigidly retracted. Restlessness continues. Tongue still heavily coated. Patient does not complain of pains in his limbs, and there is no marked hyperæsthesia of the surface.

March 19.—A marked improvement in the patient's

condition has taken place. He is perfectly conscious, but does not remember much about the beginning of his illness. The tongue has thrown off its fur. The headache has diminished in intensity, but the pain in the nape of the neck, and the rigidity, still continue; the retraction is, however, less. There is also a tendency to defervescence as shown by the thermometer.

March 21.—To-day the patient's temperature is normal, and the symptoms generally indicate that he is entering upon convalescence.

March 23.—The improvement noted on the 21st was of short duration. To-day the symptoms denote a relapse. There are marked mental hebetude, severe headache, and rigidity of neck. The pulse, which has hitherto maintained a certain degree of fulness and firmness, is to-day weak and compressible: it remains still infrequent. The heart-murmur still continues, with the same character as when first heard. The patient was directed to take three ounces of whisky daily.

March 25.—There is again to-day a fall in the temperature and a subsidence in the severity of the other symptoms. A tendency to constipation exists, to relieve which enemata are employed.

March 31.—All the previous symptoms have returned in full force; the mental hebetude, headache, occasional delirium, retraction of the head, and coating of the tongue, are as marked as before. The pulse, which has been up to this time unusually infrequent, is now over one hundred, and a very slight exertion is sufficient to cause an increase of from ten to twenty beats in the minute. The respiration still continues about normal. The use of the quinia was discontinued, and opium prescribed in grain doses every four hours.

April 8.—There has been little to note since the 31st ult. It is evident to-day, however, that the patient is gradually sinking. He lies upon his back, with his eyes half open; the stupor is more marked than it has ever been before, the tongue is still heavily furred, the pupils are moderately dilated and contract very slowly under the stimulus of light. No paralysis of the extremities. It is sometimes necessary to introduce a catheter to empty the bladder. Constipation continues. Decubitus dorsal.

April 13.—Death took place to-day at 12 M., having been preceded by the signs of congestion of the lungs. The autopsy was made twenty hours after death. Rigor mortis well marked. The dependent portions of the body were much discolored from hypostasis of blood. The blood was everywhere found fluid and dark in color.

The veins of the scalp were engorged with blood. The vessels of the pia mater were intensely injected, especially at the base of the brain. A large amount of serous effusion was found beneath the arachnoid and in the lateral ventricles. The translucency of the arachnoid was diminished at a few points, but there were only a few places where exudation could be found. The condition of the spinal vessels and membrane was the same as that just detailed. Several flakes of calcareous matter were found beneath the arachnoid and adherent to it. The heart was normal in size; the edges of the mitral valve were thickened, and it was not entirely competent to close the auriculo-ventricular orifice. The kidneys appeared to be healthy, but the liver was small, dark-colored, and soft, permitting the finger to be passed readily through its substance. The spleen was also soft.

Case II.—Delirium—Headache—Retraction of the Head—Faint Petechial Eruption—Recovery.

John M., æt. 17, born in Philadelphia, a cart-driver by occupation, and living near Twenty-fourth and Lombard Streets, was admitted March 19, 1873.

The patient's previous health has been good, except a slight attack of rheumatism, which did not confine him to bed. He was taken ill on the 11th inst., the first symptoms being violent pains in his temples and forehead, which were followed by high fever, nuchal pain and stiffness. He is said to have been very restless and delirious, but not violently so, and to have been the subject of hallucinations. His stomach has been very irritable; his bowels have been constipated. A faint petechial eruption was observed, two days after the beginning of his illness, on the face, abdomen, and limbs.

There have been occasional spasmodic contractions of the muscles of the arms, and shooting pains in the extremities. There has also been, it is said, a moderate amount of suffusion of the eyes.

On admission, the tongue is heavily coated; the pulse 90; the temperature 102°; and the respiration 24. Over the abdomen and on the inside of the thighs the traces of a petechial eruption may still be seen. The head is retracted, and there is still some headache. The urine is acid, and free from albumen; its specific gravity is 1024. The patient was directed to have quinia, gr. xii, daily, and bromide of potassium, gr. xx, three times a day.

March 20.—The patient's intellect is quite clear. There is no paralysis of the limbs, bladder, or rectum, and no marked hyperæsthesia of the surface. The temperature shows a tendency to fall, and there is every reason to believe that he is entering upon convalescence.

March 27.—On the 22d the temperature was normal; the quantity of quinia was reduced to six grains daily, and the use of the bromide discontinued. To-day the quinia is replaced by Basham's mixture and Linck's extract of malt.

April 11.—The patient has continued to improve since the date of the last note, and is to-day discharged at his own request. Since his admission a younger brother has died of the disease, at his own home, after only a few hours' illness.

May 20.—The patient has recently been heard from. He is in the enjoyment of his usual health, and at his former occupation.

For notes of the following case I am indebted to Dr. Frank Woodbury, one of the resident physicians at the Pennsylvania Hospital.

Case III.—Profound Coma—General Muscular Relaxation—Frothing at the Mouth—Death.

E. A., æt. 35, born in England, a sailor, and unmarried, was admitted into the medical wards of the Pennsylvania Hospital, April 16, 1873, in a condition of profound coma. The following history was obtained from his shipmates who brought him to the hospital:

On the evening of the 14th inst. he complained of pain in the head, from which he suffered all night. On the following morning he noticed, and called the attention of his companions to the fact, that he had lost the power of motion in the lower extremities. The intense headache continued, but little seems to have been done for his relief. At one A.M. of the 16th he became unconscious and began to breathe in a labored manner, white froth collecting about the lips. When first seen, the conjunctivæ were insensible to the touch; the pulse was full but very frequent; the respirations were stertorous, white froth still clinging to the lips; the skin was hot and moist, and exhaled a disagreeable odor, but there was no eruption. There was no rigidity of any of the muscles of the body. In the evening the pulse was 176, the respiration 42. The patient had been drinking for about a week previous to his seizure.

Death took place at four A.M. on the 17th, about sixteen hours after admission.

The autopsy was made twelve hours after death. Rigor mortis well marked; body large and well

formed. On the removal of the calvaria, numerous patches of plastic exudation were seen distributed over the surface of the hemispheres of the brain, under the arachnoid. Pus was found in the most dependent parts of the lateral ventricles, and at the base of the brain generally; a small collection had also taken place between the lobes of the cerebellum and under the arachnoid membrane. A band of lymph extended from the pons Varolii and crura cerebri to the adjacent parts. A layer of purulent lymph extended in streaks and patches along the posterior portion of the spinal cord throughout its entire extent. A few calcareous particles were found beneath the arachnoid.

Extensive pleuritic adhesion existed on the right side of the chest. The lungs were healthy. The heart was pale and contained in its cavities white fibrinous clots, but was otherwise normal. The liver and spleen were dark-colored and soft, breaking down readily under pressure. The kidneys were pale, the cortical substance being increased in thickness, apparently at the expense of the pyramids. About six fluidounces of urine were obtained from the bladder. This was found to be neutral in reaction, to have a specific gravity of 1034, and to contain albumen and granular casts, but no blood-disks. About half a pint of a dark grumous fluid without offensive odor was discovered within the stomach, which, with the exception of some ecchymotic patches on its mucous membrane, was healthy.

Case IV.—Intense Headache—Occasional Delirium—Great Hyperæsthesia—Subsequent Paralysis of the Extremities—Bed-sores—Death.

J. L., æt. 33; born in England, and living at the time of his seizure at 315 South Seventh Street, in this city; an unmarried man, and a paper-hanger by occupation; was admitted into the medical wards April 15, 1873.

The patient's previous health has always been good, and he is able to give us a good family history. Thirteen years ago he contracted a chancre, but he has never had any constitutional manifestations of syphilis. About thirteen weeks before admission he was taken, while living in a malarious district, with chills of the tertian type, which continued for five weeks. On the 9th inst., a week before he came under my care, he had a severe chill, followed by severe frontal headache, fever, and vomiting. His bowels have been constipated.

On admission, the patient walked into the ward. He is suffering from marked mental confusion and severe headache. His neck is rigid, and his head somewhat retracted; he has no pains in the abdomen or extremities; his tongue is furred, especially in the centre. The irritability of the stomach has passed off; the constipation continues. There is no distention of the abdomen, and no eruption of any kind discoverable on any part of the body. The pulse is slow, 56 in the minute; the first sound of the heart somewhat prolonged, but no murmur is heard over any part of the heart. The urine is acid in reaction, has a specific gravity of 1024, and contains a trace of albumen. He was ordered cut cups to the nape of the neck, ice to the back of the head, six grains of sulphate of quinia daily, and twenty grains of the bromide of potassium every four hours; beef-tea to be given freely.

April 18.—The patient evinces the same indisposition to be disturbed which was so marked a feature in Case I: he answers correctly, however, when thoroughly roused. Pupils moderately dilated, but contract fairly when exposed to the light. There is no suffusion of the eyes, but a slight degree of photophobia exists. The urine is dribbling away from him, but there is no accumulation in the bladder. Many of the symptoms have increased since his admission,—notably, the mental hebetude, retraction of the head, and the coating of the tongue. On the other hand, the headache has been entirely relieved by the cupping, by which about twelve ounces of blood were removed. The slightest movement of any of the limbs gives rise to great agony. There is no spasmodic contraction of the muscles, but reflex sensibility is much exaggerated, while the power of voluntary motion is much diminished.

April 20.—The patient to-day can move the right leg a little, but not the left,—which is exactly the reverse of what was noticed yesterday. Movement of the limbs still continues to cause great pain, and tickling the soles of the feet is evidently acutely felt, and gives rise to reflex movements, most marked on the right side. It is difficult to say whether the inability to move the legs comes from loss of power or from dread of pain. The patient refuses all nourishment. The pulse is more frequent,—84.

April 21.—The patient has less control over the left side of the body than the right, the face even being drawn to the right, and the tongue, when protruded, turning to the left. The left pupil is larger than the right, but responds slowly to light.

April 23.—An improvement in some of the symptoms is noticed to-day, especially in the mental condition of the patient, who now makes an effort to answer questions. He can move his left leg slightly to-day. A bed-sore is forming over the sacrum. The bromide was stopped, and whisky ordered.

April 26.—The neck continues rigidly retracted. The photophobia is less marked. The pupils are equally dilated and respond more promptly to light, intelligence becoming clearer. There is no headache. The pulse is very feeble and frequent. Numerous bed-sores have formed in the neighborhood of the anus, and at other points where the skin is subjected to pressure. The glans penis is much inflamed in consequence of the constant dribbling of the urine. The bowels, which have up to this time been only moved by enemata, are now loose, and occasionally the patient has an involuntary evacuation. The left fore-arm is becoming rigidly flexed.

May 6.—A few days ago the use of the quinia was discontinued, and the fluid extract of ergot, in doses of twenty minims three times a day, which was subsequently increased to five times, was prescribed. During the last week both fore-arms have been strongly flexed upon the arms. The patient cannot move the left fore-arm, and the right is moved only to a very limited extent. He has no power to move either leg. The paralysis of the face has disappeared. In spite of constant attention, the bed-sores have increased in number and size, that over the sacrum having laid bare the bone. To prevent any further sloughing, he has been placed upon his face.

May 10.—Hemorrhage occurred to-day from a bed-sore seated over the trochanter of left femur, and before it could be arrested it was necessary to tie a small artery. Although the patient presents a pitiable spectacle to-day in consequence of his numerous bed-sores, there is evidence, from the subsidence of the pains, from the diminution of the paralysis, and from the return of control over the bladder and rectum, that he is improving, and that, provided he does not sink from exhaustion, recovery is possible.

May 18.—The bed-sores present a healthy appearance; a few have, unfortunately, formed upon the anterior surface of his body. A water-bed has been procured, upon which he is now lying. He takes a fair quantity of nourishment, which he appears to enjoy. At his own request, the whisky was a few days ago substituted by ale, of which he drinks a quart every day. Pulse is frequent; generally in the neighborhood of 120. The tongue is clear; the bowels are regular, and under his control. The ergot is replaced by the following prescription:

℞ Strychniæ sulph., gr. $\frac{1}{18}$;
Acid. phosphor. dil., ℥x;
Elix. cinchonæ, f℥ss,

Four times daily.

May 20.—When the patient makes a strong effort of will, he can cause contraction of almost all the muscles of the extremities, but he is unable to move either leg from the bed. He has more control over the arms, but the movements which he is able to execute with these are slight. The contraction of the fore-arms upon the arms still continues. His mind is clear, but, although possessed of a fair degree of intelligence, he is unable to give a very clear account of the circumstances attending the commencement of his illness. He is of cheerful disposition, and bears his suffering with fortitude.

There has been at no time during his long illness any paralysis of sensation, the patient always correctly indicating the part touched.

June 16.—The patient lived until to-day, when he sank from exhaustion. The temperature continued high until his death.

June 17.—Post-mortem examination ten hours after death. The body was very much emaciated. Numerous bed-sores were distributed over the chest, sacrum, trochanter, and right knee; the sacrum being exposed. Rigor mortis was present and well marked.

Thorax.—The right pleural cavity contained a small amount of serum, and there were a few bands of freshly exuded lymph. The lung was very pale anteriorly and consolidated posteriorly. On section, the color was reddish-gray, and a fragment sank in water. At left apex there were a few old adhesions; the tissue of left lung was crepitant throughout.

Heart.—Pericardium was healthy. The heart was covered with a good deal of fat. The left ventricle was distended with a soft dark clot; the right auricle contained a white, fibrinous clot. The valves were healthy. The pulmonary artery contained dense white clot.

The stomach was healthy; the liver was pale in color and small; the gall-bladder was filled with yellow bile; the spleen was small, pale, and flabby, and the kidneys were normal in size, but flabby and rather pale. Their capsules were thickened, opaque, adhesive in places; the cortical portion was increased in thickness, but presented no other unhealthy appearance. The surface was marked with stellate veins.

Head.—Some fluid escaped on opening the skull, and still more when the brain was removed from the membranes. The dura mater was slightly congested; the arachnoid membrane covering the hemispheres had lost its transparency, especially anteriorly, and the fissures between the convolutions were filled with gelatinoid matter. At the base the injection of the vessels of the pia mater was more marked than on the convexity, and the opacity of the arachnoid less marked; the margins of the middle lobes were tightly adherent to the anterior lobes; the arachnoid around the medulla and the upper end of the cord was decidedly opaque and thickened. Outside the dura mater of the spinal cord there was a mass of gelatinoid matter very much resembling fat, but uniform in consistence, and evenly covering the membrane. This condition was most marked in the upper dorsal region. The two surfaces of the arachnoid were adherent in places. There was a deposit of lymph on the lower part of the cord on its posterior aspect, and a few calcareous plates were also found. The vessels of the pia mater were much injected.

A curious result of the post-mortem examination was the finding of the calcareous flakes beneath the membranes of the spinal cord. When these were treated with nitric acid, they were partially dissolved, with the evolution of carbonic acid. A small gelatinous mass was, however, left after the disengagement of the gas.

The following is the record of the temperature, respiration, and pulse in three of the cases:

Case I.—Philip G.

	Morning.			Evening.		
	Temp.	Res.	Pulse.	Temp.	Res.	Pulse.
March 16,	99°	24	50	101°	24	52
" 17,	100°	18	56	102°	18	64
" 18,	101°	18	60	102°	18	60
" 19,	100°	18	60	101½°	20	60
" 20,	101°	20	60	101°	18	56
" 21,	98°	18	52	98½°	18	54
" 22,	99°	18	52	102°	24	54
" 23,	101½°	18	54	100½°	20	50
" 24,	102°	20	70	102½°	24	54
" 25,	98½°	18	64	100°	18	62
" 26,	99°	22	66	99°	20	72
" 27,	100°	24	64	102½°	24	60
" 28,	102°	24	72	101°	18	58
" 29,	101°	18	78	101°	18	66
" 30,	103°	24	66			
" 31,	102°	18	64	102°	17	68
April 1,	99°	24	50	104°	18	78
" 2,	100°	14	52	100°	14	60
" 3,	100°	16	56	103°	18	68
" 4,	100°	18	70	100°	18	80
" 5,	103°	24	84	102°	20	70
" 6,	103°	18	84	101°	28	88
" 7,	100°	18	66	100°	18	66
" 8,	99°	18	84	101°	18	90
" 9,	98°	20	88	102°	16	120
" 10,	99½°	42	96	97½°	18	96
" 11,	102°	48	106	102°	48	120
" 12,	101°	52	130	103½°		

April 13.—Died.

Case II.—J. M.

	Morning.			Evening.		
	Temp.	Res.	Pulse.	Temp.	Res.	Pulse.
March 19,				102°	24	90
" 20,	101°	44	80	101°	36	80
" 21,	99°	18	74	101½°	24	94
" 22,	98°	24	64	100°	18	64
" 23,	99°	18	72	99½°	16	80
" 24,	98°	18	72	100°	18	72
" 25,	98°	16	76	98°	18	78
" 26,	99°	18	78	99½°	16	80
" 27,	99°	18	76	99°	18	74
" 28,	98°	18	70			

Convalescence complete.

Case IV.—J. L.

	Morning.			Evening.		
	Temp.	Res.	Pulse.	Temp.	Res.	Pulse.
April 16,	103°	18	66	102½°	18	56
" 17,	102°	18	54	101°	18	56
" 18,	101°	34	58	102°	24	74
" 19,	102°	36	68	103°	42	80
" 20,	102°	32	80	102°	38	84
" 21,	101½°	42	86	101°	48	100
" 22,	102°	52	102	102°	60	120
" 23,	101°	46	90	104°	50	120
" 24,	101°	46	104	104°	48	124
" 25,	103°	40	114	101°	48	124
" 26,	101°	34	110	102°	42	126
" 27,	102°	40	116			
" 28,	100°	36	100	105°	50	40
" 29,	101°	42	116	103°	42	124
" 30,	101°	52	98	102°	43	114
May 1,	99°	52	108	103°	43	114
" 2,	101°	40	92	103°	40	112
" 3,	101°	30	104	105°	36	124

		Morning.			Evening.		
		Temp.	Res.	Pulse.	Temp.	Res.	Pulse.
May	4,	100°	30	98	105°	42	120
"	5,	100°	36	100	104°	42	130
"	6,	99°	36	100	105½°	42	150
"	7,	98°	50	112			
"	8,	100°	36	116	105°	40	134
"	9,	101°	40	116	104°	42	130
"	10,	101°	42	120	103°	48	130
"	11,	99°	40	104	104°	46	140
"	12,	102°	36	112	101°	42	112
"	13,	101°	50	124	101°	50	124
"	14,	102°	40	120	101½°	52	124
"	15,	100°	48	120			
"	17,				104°	50	130
"	18,	99°	36	104			
"	19,	104°	44	114	102°	48	132
"	20,	99°	30	108			

LOCAL CONGESTIONS IN A CASE OF AGUE.

BY H. G. LANDIS, M.D.,

Niles, O.

THE following case is one of some interest, as exhibiting some of the congestive phenomena of intermittent fever, and is reported not for its unusual character, but as illustrating certain points in the clinical history of the disease.

August 1, P.M.—Called to see M. J., æt. 40, intemperate, but a strong, vigorous man. His history was to the effect that he had been drinking excessively but had to-day stopped abruptly. He was alternately sitting and reclining on a lounge, and was delirious. The delirium was not violent, but cheerful, save that he required considerable persuasion to induce him to remain in the house. His skin was of natural warmth and moisture. Pulse full and slow—60 to the minute; tongue smooth and moist; slight tremor of the hands. There was no history or evidence of an antecedent chill. He was ordered chloral, gr. x, potassii bromidi, gr. xv, every hour until he slept.

August 2, P.M.—Has felt well all day, having completely recovered from all of yesterday's symptoms.

August 3.—At sunrise, while a heavy dew was on the ground, he went into his garden to weed. At 11 A.M. he had a *slight* chill, followed by fever. Called to see him at 3 P.M. Complains of violent headache, and pain in the chest, with cough. Eyes suffused; skin pungently hot. Pulse 90 per minute, quick and hard. Respiration hurried. Expectorates white mucus. On auscultation found exaggerated vesicular murmur over lower half of each lung, and distinct râles over base of right lung anteriorly. Applied mustard to chest, and gave tinct. verat. virid. ℥iij, to be repeated in three-quarters of an hour, and again in three hours.

August 4, A.M.—Found, much to my surprise, that, having rested well during the night, he was now in his usual state of health. No trace of trouble remained in the lungs. Skin moist. Eyes clear. Pulse 54. On the following day he had a severe chill at 10.30 A.M. which lasted a half-hour, and was followed by fever. Quinine was at once given, with arsenic and iron, and he had no further return of malaria.

As regards the first attack, I am still unable to see why there should have been, under the circumstances, any need of a differential diagnosis between delirium tremens and ague; and yet, in view of the subsequent phenomena, it may justly be questioned whether the patient had delirium tremens, and whether the delirium was not merely an evidence of a congestion of the brain caused by the paroxysm of ague. So far as my own observation extends, the chill of ague is never so marked when the internal congestion accompanying it is limited to a particular organ, as it is when the congestion is more generally diffused. I have seen a case where the patient became comatose at once without any chill at the time, the paroxysm seeming to expend its whole force on the brain. To this class, perhaps, belong the malarial neuralgias, and the pleuritic and other pains of the "dumb ague," where the attack is not in sufficient force to cause that general internal congestion which constitutes the chill, and causes instead local congestion, manifested by pain in the affected structure.

In the second attack the chill was slight, and yet the paroxysm was so violent as to cause sufficient congestion of the lungs to develop a crepitant râle. There is, however, an unknown factor in this problem. The intensity of the chill is practically no guide to the force or extent of the congestion. There is evidently a subjective disposition which determines this. Coma occurring in a paroxysm of intermittent fever is not an evidence of "pernicious fever;" for the same cause will give the patient's neighbors simple intermittents. It merely shows a pernicious disposition in the patient to a violent local congestion in place of the more general form.

June 2, 1873.

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

SERVICE OF DR. H. ALLEN.

Reported by J. WM. WHITE, M.D., Resident Surgeon.

SYPHILITIC ULCERATION OF THE LARYNX—DYSPNŒA—TRACHEOTOMY—DEATH.

ELIZA FLEMING, æt. 46, was admitted to the hospital wards on April 18, suffering from dyspnœa, which was found on laryngoscopic examination to be caused by an ulceration of the left vocal cord. She was a victim of constitutional syphilis, and had at the time osteocopic pains, periosteal nodes, and other manifestations of the disease.

Treatment was commenced at once by the daily application to the ulcer of a sixty-grain solution of nitrate of silver, the use of atomized inhalations of muriate of ammonia and morphia, and the administration of large doses of iodide of potassium. She seemed for some time to be improving under this treatment, but at about half-past five on the morning of May 22 she was discovered by the nurse to be insensible, breathing with great difficulty and apparently in the last stage of suffocation. I was immediately sent for, and on reaching the patient found her entirely comatose and almost pulseless, with cold extremities, distended jugulars, and intense cyanosis. Reflex action was completely abolished: the heart-beats were so frequent that it was impossible to count them, and the respiratory efforts were faint, gasping, and incomplete, occurring only about eight or ten times a minute.

As the necessity for prompt action was evident, I immediately performed tracheotomy and inserted a tracheal tube. No difficulties were met with during the operation, and not more than twenty or thirty drops of blood were

lost. Improvement commenced at once: her respirations increased in frequency and fulness, the pulsations of her heart became firmer and more regular, and in half an hour she was breathing thirty-eight times a minute, with a pulse of 150. Her conjunctivæ now responded to irritation, but she still had paralysis of the left side of the face, which continued for thirty-six hours.

She was then carefully removed to a separate apartment, the temperature of which was raised to 80°, and a stream of the vapor of lime-water from an atomizer was directed towards her face and neck. She breathed entirely through the tube, no air whatever passing through her mouth or nostrils.

About eight o'clock, two hours after the operation, an accumulation of mucus in the trachea caused her pulse and respirations to run up in frequency and her inspirations to become shortened and labored. The administration of a tablespoonful of whisky-and-water, which was swallowed, brought on, as was desired, a fit of coughing. The mucus was expelled through the tube, and the condition again improved. At nine o'clock her pulse was 120, respirations 27. Injections of milk and whisky were given at short intervals, and at about ten o'clock she for the first time showed signs of consciousness, opening her eyes when spoken to. Pulse 120, respirations 22. At 10.30 she had a very severe spell of coughing, during which the tube was ejected from the trachea, together with a large quantity of bloody, tenacious mucus. An additional quantity of the same material was brought away by the introduction of a finger into the trachea, and the tube was then replaced.

During this paroxysm the cyanosis, which had almost disappeared, returned; consciousness was again lost, the pulse ran up to 132, and the respirations to 42, becoming incomplete. She continued in this condition, with marked congestion of the face and neck, until 12.30, when she once more showed signs of consciousness, and the cyanosis began to diminish. Pulse 129; respirations 33, and somewhat fuller. She had been taking hourly an ounce each of whisky and milk by the rectum. When it was necessary to excite coughing to effect the expulsion of mucus from the trachea, a spoonful of whisky by the mouth was always found to have the desired effect. Her general condition improved during the day; cutaneous sensibility returned, the cyanosis disappeared, and she showed a disposition to talk rationally. The pulse remained about 120, and the respirations from 22 to 24 per minute.

At 6.30, in a paroxysm of cough, the tube was again expelled, but on this occasion there seemed to be none of the dyspnœa which was observed when the same accident occurred previously, and it was discovered that she was breathing partly through her mouth. The tube was replaced without any trouble, by using the forefinger as a guide to the edge of the tracheal opening.

She was taking at this time a half-ounce each of whisky, milk, and lime-water, and from one to two ounces of beef-tea, on alternate hours. As there was some irritability of the rectum, most of these doses were given through the mouth, and were accompanied by more or less coughing, which seemed rather to relieve the patient than to exhaust her. The mucus which was discharged now was much less tough and tenacious than it had been, and was becoming slightly purulent.

Deglutition apparently gave her a great deal of pain; but we discovered that we could diminish the difficulty of the act by gently bringing the internal extremity of the tube towards the anterior tracheal wall, thus probably removing its pressure from the œsophagus. She slept quietly through the night, taking without any trouble the nourishment and stimulus which were given, and appearing when awake to be perfectly conscious and rational. Skin moist and warm. Pulse 120, respirations 26.

23d.—Beef-tea and the mixture of milk, lime-water, and whisky were given hourly during the day. The patient's condition remained about the same, with perhaps a little failure in strength, and a slight tendency to drowsiness, verging on stupor. The pulse was still 120, respirations 25 to 30. She expectorated frequently, bringing up large quantities of mucus, now decidedly purulent. Towards night she grew uneasy and restless, her respirations became jerking and irregular, and ran up to 42 per minute. Pulse 134. Return of the venous congestion of the face and neck.

At this time a portion of the food which was given her through the mouth began to be returned through the tracheal tube after an attempt at deglutition. This was at first attributed to a paralysis of the glottis and epiglottis permitting the liquids to trickle through the larynx and into the trachea; but it was subsequently found that the more probable cause was an extensive œdema of the posterior laryngeal walls, which by occluding the œsophagus forced the food into unnatural channels. It was still impossible to nourish her through the rectum, as even the smallest quantities of the most unirritating substances were at once rejected.

24th.—Early in the morning several severe coughing-spells greatly exhausted the patient; her pulse attained a frequency of 142, and her respirations became gasping and irregular. Once or twice during the day she seemed to rally and gather strength; but, in spite of the injection of large quantities of stimulus and concentrated nourishment, she sank again, her pulse became dicrotic, her breathing incomplete and limited to a small area over the upper part of the chest, and her skin cold and clammy. Coma returned, involuntary evacuations from the bladder and rectum took place, and the purplish hue of the face and neck steadily deepened. She died at noon on the following day, 25th, having survived the operation seventy-eight hours.

Post-mortem Examination—Brain.—General œdema of the brain-substance, and slight congestion of the membranes, with a large serous effusion beneath them and into the ventricles.

Lungs.—Extensive hypostatic congestion of the posterior surfaces on both sides, but no evidences of pneumonia or even of bronchitis.

Kidneys.—Large, white, and fatty, with diminution of cortical substance, especially on left side.

Liver.—Hardened, enlarged, and irregular, with evidences of chronic interstitial hepatitis.

The rest of the abdominal and thoracic viscera were healthy.

On opening the larynx, a large elliptical ulcer, some four or five lines in width, was found on the left side, extending along the vocal cord from the receding angle of the thyroid to the base of the vocal process, which was ulcerated and necrosed. The vocal cord of the right side, the false vocal cords, and the ventricles of Morgagni were healthy, and there was no involvement of the epiglottis. The mucous membrane on the posterior laryngeal walls was highly œdematous, and was filled with an effusion of semi-plastic lymph.

As syphilitic disease of the throat usually spreads from above downwards, and ulceration with partial destruction of the epiglottis is so constantly a forerunner of laryngeal ulceration, its entire freedom from involvement in this case is an interesting feature.

The probable cause of death was the cerebral œdema.

Treatment of Diabetes by Arsenic (*La France Médicale*, March 19, 1873).—M. Devergie recommends the employment of an arsenical treatment in cases of diabetes, and has satisfied himself of its good effects even when no restrictions were laid upon the diet and farinaceous articles were freely taken.

TRANSLATIONS.

BLOOD-LETTING.

THE following, from a very recent number of the *British Medical Journal*, has seemed to us of sufficient importance to be worthy of a prominent place in our issue:

"We gladly welcome such researches as have been lately published by Bauer in the *Zeitschrift für Biologie*, whose experiments were made for the purpose of discovering what changes occur in the metamorphosis of albumen and fat in the body after venesection. One would expect *a priori* that the withdrawal of a quantity of blood, by merely lessening the amount of albuminous substances in the body, would be followed by a diminution in the daily metamorphosis. So far from this being the case, however, Bauer finds that the quantity of albuminous bodies decomposed daily in the organism is invariably increased by blood-letting, and the excretion of the urea which is formed by their decomposition is consequently augmented. Notwithstanding this, however, much less oxygen is consumed than before, so that the substances into which albumen splits up cannot undergo such perfect combustion as before the venesection. One may readily understand this, for it is the red blood-corpuscles which carry oxygen throughout the body; and when their number is lessened by blood-letting, combustion in the tissues can hardly go on so rapidly as before. The decomposition of albumen in the body is altogether independent of the oxygen consumed in it. Now, fat is one of the substances formed by this decomposition; and, as its formation is increased and its combustion lessened, to say nothing of the fat taken as food, it must accumulate in the body: and this it actually does, as was well known to the phlebotomists of former days, whose writings contain many a record of cases where patients became enormously fat after copious blood-lettings. The same thing is seen in a milder form almost every day in the case of chlorotic girls, on whose bodies fat becomes deposited, because they have too few red blood-corpuscles to carry to it the oxygen required for its combustion. In many localities, too, cattle-breeders have become acquainted with the fact, and they increase the quantity of fat formed by their animals either in the shape of butter yielded by their milch-cows, or accumulated on the bodies of the oxen they wish to fatten by bleeding them from time to time.

"In diseases such as pneumonia, blood may be drawn for the purpose of diminishing temperature or of lessening dyspnœa. It may be supposed that Bauer's experiments support the use of blood-letting for the former purpose; but this is not the case, for the fall of temperature which blood-letting produces takes place immediately, and is soon over, while combustion does not diminish till some hours have elapsed. The fall of temperature is, therefore, due to another cause,—viz., the relaxation of the superficial vessels allowing the blood to cool more readily; but temperature can be reduced much more quickly and effectively by the cold douche or a wet sheet; and increased transformation of albumen, with diminished oxidation, is not unlikely to lead to a fatty degeneration of important organs.

"The relief which venesection generally affords in dyspnœa probably depends in part on its effect in cooling the body, for Fick and Goldstein have shown that increased temperature of the blood is sufficient to produce dyspnœa. This is a real benefit; but it would be attained as well by the use of the wet sheet, and a second cause of the subjective relief after blood-letting is by no means so desirable. The loss of blood, according to Traube, diminishes the irritability of the medulla oblongata, which is the centre of innervation for the respiratory muscles, and, by thus producing a sort of narcosis in this part of the nervous system, deprives it of its power to appreciate rightly the respiratory wants of the body. A third way in which it may prove useful in dyspnœa is by lessening the resistance, which hinders the right ventricle from emptying itself completely, and, by thus facilitating the circulation in the lungs, may assist respiration. The author considers that this condition will only last until as much fluid has been absorbed into the vessels from the tissues as will restore the blood to its former volume; but of this we are not quite sure.

"Lastly, he says it is not to be denied that the danger arising from serous exudations in important organs, as well as of congestion of the brain or lungs, may be temporarily averted by general blood-letting, in consequence of the absorption of fluid into the vessels which it occasions. This observation has been too often made to leave any doubt upon the subject; but as often has it been noticed that the danger of these conditions recurring increased after every venesection. Œdema is to a great extent dependent on weakness of the vaso-motor nerves (see this Journal, June 15, 1872, p. 644); and, this weakness being increased by blood-letting, the œdema is of course more likely to recur. Bauer, however, gives a case which shows most strikingly the immediate benefit produced by blood-letting in a case of œdema of the lungs; and we are inclined to think that the weakness of the vaso-motor nerves which might lead to a recurrence of the œdema might be successfully combated by a vaso-motor tonic, such as digitalis. While this shows that immense benefit may be derived from its use in proper cases, the effects which it produces on the tissue-change in the organism teach us that it is not a remedy to be thoughtlessly used, but one which must be employed only after due consideration and with watchful care."

AN IMPROVED TONSILLOTOME.

THE instrument represented in the accompanying cut was suggested by Dr. J. S. Billings, assistant-surgeon U.S.A., to D. W. Kolbe, Philadelphia, and was ordered for the Medical Department of the Army.

The advantages claimed for the instrument consist in—

1. The simplification of the mechanism, its lightness, its never failing to cut, and its being easily kept in order.

2. Its enabling the operator to remove the tonsil with one hand only.

3. The fact that when the instrument is in the grasp of the two forefingers and thumb, it may be applied to the tonsil (either right or left), and while the knife is thrust forward by the thumb, the double fork (as seen in the wood-cut) is brought into action, seizing and elevating the tonsil sufficiently for its removal.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, JUNE 28, 1873.

EDITORIAL.

CHEAP!

"JOHN," said in our hearing an acquaintance old in experience and rich in this world's goods, when speaking to a young nephew about a certain scheme which it was thought would redound to the credit of those identified with it,—"John, never thee mind the credit; thee look after the cash." Remembering this incident, we have been tempted to pry into the cash account of the Philadelphia Hospital, and desire has been warmed into action by sundry eulogiums we have recently heard pronounced upon the economy with which the institution is managed. As a student and physician, not rarely have we trod its halls; and, calling to mind its stairs half worn away by the tread of misery, its floors whose gaping cracks and seams offer inviting resting-places for contagion, its wards whose naked dreariness speaks of the work-house, we are ready to acknowledge that, if economy and poverty are synonyms, Philadelphia Hospital has the most economical appearance it has ever been our lot to witness in an institution of such character.

We have gone further, and, examining its financial statistics, found that the average cost of patients per week was, in 1869, $2.46; 1870, $2.49; 1871, $2.65; 1872, $2.53.

In this are included food, clothing, light, heat, nursing, medical attendance, a priest to shrive, a coffin to lie in, a grave to rest in,—all for $2.50 a week! Certainly this is cheap. Pleasant—is it not?—for the tax-payer.

No one who has ever been in the Pennsylvania Hospital at meal-time would complain that the patients there are over-fed. No one who has personal knowledge of its honored steward would assert that he is extravagant in ideas, or not well skilled in practical economics. Yet there the average cost of patients is a little under $7.50 a week. Seven dollars and a half versus two dollars and a half! Certainly there is a difference,—a difference which becomes more marked when it is remembered that in the Pennsylvania Hospital the patients wear their own clothes, but that in the Philadelphia Hospital they are furnished with others.

Taking the year 1869, because at present writing its report is the only one at hand, we find that the average cost of food in the Philadelphia Hospital was per week $1.40; twenty-one meals, 6¾ cents a meal, including beef-essence, milk, eggs, and all other forms of extra diet. Six and three-quarter cents a meal for the patient consumed with fever! Six and three-quarter cents for the sewing-girl exhausted with toil and daily struggling! Six and three-quarter cents for the debauchee broken down with excesses! Six and three-quarter cents for the frame wasted with the hectic of phthisis! Six and three-quarter cents for the men and women pouring out their life from chronic abscesses, struggling to pass a certain point as a ship in a storm upon a lee shore struggles to round a promontory beyond which lies smooth water! One fi'penny bit for life! Certainly this is cheap. Pleasant—is it not?—for the tax-payer.

Man of wealth, dining sumptuously every day, wasting your strength with the rich viands of luxury, twenty cents per day is what the city of Philadelphia allows for the sustenance of the sick and dying in the only hospital *which is freely open to receive all those who, mayhap in the midst of honest toil, are stricken with disease, and who, being dependent upon their daily work, are, when disabled, nothing but paupers in the eyes of this Commonwealth.*

In our obtuseness it has occurred to us, however, that may-be the economy is more apparent than real. We have reasoned in this way. If a rheumatic patient takes cold and suffers relapse from insufficient clothing, what difference does it make if you have saved half a dollar by keeping him without a flannel shirt? If a chronic diarrhœa becomes incurable from want of suitable diet, and the patient remains a permanent inmate, where is the economy? If a fever case drags its convalescence for want of proper nourish-

ment, how is there a saving for the tax-payer? In a word, as no man in his senses, imbued with any regard for the truth, would assert that hospital patients can be properly fed in Philadelphia on six and three-quarter cents a meal, to protract convalescence—to convert an acute case into a chronic one by improper nourishment—seems to us no economy.

SINCE the above editorial was in type, we have heard some complaint against the one on the Philadelphia Hospital which appeared in our issue of June 14. Especially have we been asked, What are you driving at? Why not state plainly what you mean? Well, we did try to speak plainly, as far as we went. We did try to say forcibly that the practical daily government of the hospital is not centred, as it should be, in one person, but is left to a number of subordinate officers, who from the very nature of the case are incapable of managing the institution, and who, in practice, are not even bound by the printed rules of the house.

Some have construed our editorial—unjustly, we think—as bearing hardly upon the *present* resident physicians. Any such intention we entirely disclaim. According to the unanimous voices of their superiors, they are able, faithful, and self-sacrificing. We did mean to assert that, in such a staff, annually chosen for a term of months, there must be, from time to time, all sorts of characters; that all of the staff are, of necessity, inexperienced; and, further, that the printed rules for their government are, as they long have been, practically a dead letter.

The space allotted to editorials in our journal is too small for us to display in a single number the many shortcomings of the Philadelphia Hospital. This can only be done by a series of articles. We can, however, in a few lines, make definite charges, each capable of forming the basis of an editorial of some length. Let us at present arrange a few new ones, as follows:

1. That the sick poor are degraded morally by being regarded as paupers,—uniformed as such, and by being forced into the closest association with paupers.

2. That the food of the Philadelphia Hospital is not what it ought to be for hospital patients. This we have tried to show in to-day's issue.

3. That the nursing and attendance, although improved of late, are insufficient.

4. That, whilst some of the wards are comparatively airy, others are so unfit for their purposes that no language seems too strong to denounce them in.

5. That in winter the wards are frightfully overcrowded,—not merely the regular beds being filled, but numbers of the patients being forced to lie upon the floor.

IN calling attention to long-standing abuses, it is impossible to avoid hurting the *amour-propre* of some one. In the present instance we desire to state plainly that the fault does not lie with the governing or medical board, or even indeed with the City Councils, but rather depends upon the erroneous idea which underlies the whole matter, that the city hospital is an institution for paupers, to form a part of an almshouse and to be governed as a workhouse.

The present system has been handed down through successive generations of guardians; each man when first elected perhaps resisting the current, but soon yielding to the general opinion that the place is good enough for paupers, and finally settling into the belief that the Philadelphia Hospital is a great and blessed charity.

So far as they have known, we believe that the hospital committee have tried to do their duty: the executive of an improper organization, they are powerless to overcome the faults inherent to the system. As constituted to-day, the committee probably has more knowledge of the wants of a hospital and a clearer appreciation of the existing evils than ever before. Their honesty of purpose is beyond dispute. The attention to their duties given by all of the members is great, and the sacrifice of time and labor on the part of some of them merits the highest praise. Indeed, our utter despair for the future of Philadelphia Hospital, as now constituted, rests largely upon the conviction that although the committee fails to accomplish anything of moment, its *personnel* is of such high character that any improvement of it is most improbable.

We know that various attempts at reform have been made by the governing committee and by the medical staff during the last few years; but we know also that the improvement really achieved amounts to very little, and are sure that the only solid basis for improvement in this case is *revolution*,—a complete separation of the hospital from the almshouse; a recognition of the cardinal fact that a man disabled by sickness, even if brought upon him by vice, is yet a man to be nursed, attended, cured, and to be restored as a useful citizen to the state.

AT the risk of wearying our readers, we reiterate that the articles on the Philadelphia Hospital which have appeared in our columns have been written solely and purely to call, if possible, public attention to a matter which most pressingly needs it. We have no fault to find with the governing board or officers of the institution. With the amount of money placed at their disposal, with the system which has prevailed since time immemorial, we believe the best results that can be are achieved by the Board of Guardians. For the credit of our city abroad, for the sake of the suffering poor, in the name of Christian charity, we do and shall continue to plead for a complete change in the system, for the organization of a disciplined, creditable hospital,—separate and distinct from the almshouse,—a house of refuge, whose wards shall indeed be temples of blessing to the sick and the weary.

To the present Board of Guardians above all do we appeal that they aid us in laying the whole matter before the community, and in informing public opinion, that it may justify City Councils in making the increased appropriations without which no improvement of moment is possible.

We do not think that we have in any wise put the truth in too strong a light; we do not think, indeed, that we have laid bare all the evil: if, however, in the opinion of any one having knowledge, one unjustifiable word has been said, our columns are open for communications upon the subject.

THE Committee on Reform and Retrenchment reported to the City Council, on Thursday, June 19, a bill for the sale of the present Almshouse farm, and removal of the Almshouse to a position near the present House of Correction. The bill was postponed by Councils until Thursday the 26th, and, as the meeting of that date is the last of the season, and the matter is too important for hasty action, probably nothing will be done until fall. Any discussion of the bill at this time would, therefore, be premature; and we content ourselves with saying that, if proper measures be adopted, in this movement will be found the cure for the troubles we have spoken of.

THE VACANCY AT THE JEFFERSON COLLEGE.

WITH a smile that is childlike and bland, our friend the editor of the *Medical and Surgical Reporter* rises (issue of June 21) to explain to the admiring Board of Trustees in the Jefferson College their duty in regard to the vacancy in the chair of anatomy. With the sweep of the well-used and well-abused weapon, the cry of nepotism, he chops off the head of one of the prominent candidates; with faint praise he lays low another; with absolute ignoring he covers the third; and then in the strong light of his favor he holds forth his candidate as the man among men.

We have always had a respect for clannishness,—for the loyalty to kindred which prompts a man to aid those in whose veins flows blood like unto his own. But when the editor of a medical journal, in his public capacity, allows himself to carry the principle into his editorial columns, or even to appear to do so, he certainly throws himself open to censure, and in most cases damages the candidate whom he would help.

Except in very rare instances, a medical journal has, we hold, no business to interfere in a canvass of this kind, much less to insinuate that nepotism may influence the appointing board.

If any one candidate stands out pre-eminently above the rest, if the unanimous voice of the profession be in favor of one man, it may be the duty of a journal to speak in behalf of its constituents; but on an occasion like the present, when the alumni and the faculty of the college are divided in their choice, when the availability of the various candidates is such that it is a matter of individual opinion as to who is the best man, any journal that attempts to direct the various currents into one channel simply injures its own influence, if it possess any.

In conclusion, we wish to say one word in regard to "nepotism,"—a word which we would leave unspoken did we not know that ere it reaches the reader's eye the election will have been decided. If a man build up a business in ordinary life, it is the universal and just custom, when age or sickness overtakes him, to hand it over to his children. A position in a medical school differs, it is true, from a private business, but not so absolutely as some contend. The prosperity of almost every school rests upon the reputation and exertion of at most two or three professors; and we believe it to be nothing but common justice that when this has been the case such professors should have a claim upon the school for their children,—a claim which should not be paramount, but which should not be lost sight of; a claim which should not interfere with the election of a man superior to the son of a professor, but which should always give to that son the advantage, provided he prove himself the equal of his competitor.

Not being in any sense on the inside of the canvass, we have not the slightest idea who will be elected this afternoon; but we shall keep back the issue of our journal so as to inform our readers. Editorially, we are for the best man; but we consider it the duty of the trustees of the Jefferson College—not ours—to decide this knotty question. As to probabilities,—like the Irishman at the "Limerick races,"—"two to one that the foremost horse wins."

CORRESPONDENCE.

THE following letter was handed us by a prominent practitioner, to whom it was sent by one of his patients. We would call especial attention to it, because we are well convinced, from some experience, of the truth of much that is said in it:

DEAR DOCTOR,—Thanks to a kind Providence, I feel myself now at last so well that I am able to answer some of your questions. I mean besides to give you the conclusions I have come to after being an inmate of three asylums, and I venture on this because I was so long near well as to have for many months as good power to see what went on, and to judge of things, as any one not a doctor. I meant at first to speak out about each asylum, but in all of them I had great kindness shown me, and I have been told that if I name them I shall do them harm, and keep people from being sent to them, to the loss of both sides. If what I say here is unreasonable or foolish, do not print it. If it is not, I would like done with it whatever can be for best to such as are the miserable sufferers I have been. I have talked with many insane people, and found that they, many of them, have physical pains or annoyance which are not much looked after in asylums, and I am sure that in two of those where I went I never had such a thorough overhauling of my chest, and heart, and stomach, and head, as my outside doctors have given me. I was surprised to find lately that examination of urine is necessary, and know that no one ever in these places did look at mine. Asylum doctors cannot be much blamed; because where I have been there was always too few doctors, and the youngest ones were always going and coming. Even if a doctor lives among crazy people constantly he must tire of their complaints which so many are false, and therefore must get heedless of real ones. My remedy would be to get one or two good doctors outside to come once a week and see cases, and perhaps they would be fresher to see into the body ailments.

I saw in asylums many persons who were harmless, and who I guess would be more happy at home, and sometimes were really incurable. I suppose that if the cause of a man's madness was in what surrounded him at home he ought to be away from it; but if this is not so, why must he be in an asylum unless he is so handled by his disease as to be dangerous?

It may seem a little thing, but I used to have at home a great variety of eating, and in one asylum, though food was plenty, it was coarser than people well-off at home are accustomed to, and it was not various. Perhaps if the visiting doctors could come in at meals now and then it would be a good thing. As to managers, they come out on set days, and know very little of all that goes on.

The worst complaint I can make is about what kept back my recovery a long while. I saw in asylums many people who were just so far well that the monotony of their lives was dreadful. You can't amuse a man all the time; and if a man has been a hard worker, as he gets better he ought, as I think, to be put to work. I would say, do so much labor of one kind or another each day, and if you do it you will have certain privileges, better diet, or moderate use of tobacco, if wanted, or a ride outside.

I was a long while just so that if I had had a reason to work I would have gladly done it, in a garden or field. Cannot this be carried on as a system in some asylum? No one but a nearly sane man knows what it is to have to walk about with more crazy people all around, and to have just games and the like to fill his day up. My own feelings would make me think that good hard labor would help some people as they get better.

I am sensitive about my name being known, but I should not be sorry for you to publish this if it will do any one good.

Yours, truly and respectfully.

——— ———.

PROCEEDINGS OF SOCIETIES.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

SEMI-MONTHLY MEETING, May 28, 1873.

Reported by JAMES S. BAILEY, M.D.

DR. ALBERT VAN DERVEER, PRESIDENT, in the chair.

BY request of the Common Council, the Society met to discuss the propriety of using the waters of the Hudson for city purposes.

The PRESIDENT opened the meeting by stating the subject for discussion, and remarked that it was one of grave importance to all. They had met, not to compare the water of the Hudson with other sources, but to decide as to the fitness of the river-water for culinary and drinking purposes.

Dr. LEVI MOORE remarked as follows: "Mr. President, the question before this Society is one of great importance. We are asked as physicians if the water of the Hudson River is good in a sanitarian sense. The hygienic aspect is the only one for us to consider. I trust that whatever action we shall take will be prompted by a sincere desire to secure to the public the greatest possible immunity from the germs of enteric and other diseases which we are so often able to trace to the use of impure, tainted, or sewage water. Whatever experts may say in commendation of sewage water,

even when largely diluted with purer water and taken from a rapidly moving current, although it may be clear and sparkling and possess no unpleasant taste or smell, yet the common instincts of our nature repel it as unfit for domestic use.

"I need not bring to the attention of this Society instances where typhoid fever, cholera, dysentery, and other diseases have been clearly traced to the use of impure or sewage water. These cases have been too numerous and too well authenticated to be doubted. The germs of disease are often too minute, too subtle, to be weighed in the chemist's balance, or to be detected by his most careful analyses. Because he cannot detect any death-dealing poison in the limpid fluid, does he therefore presume to say that there is none, and that the water therefore is wholesome and good? Because the continued use of small doses of an active poison does not kill at once, is it any the less a poison?

"My own conviction is that the water of the Hudson River is entirely unfit for domestic use, receiving as it does the sewage of our city, and, within ten miles to the north of us, the sewage of the cities of Troy and Cohoes, and the village of West Troy. All this sewage, together with that from the villages on the Upper Hudson and Mohawk, flows past our city and mingles with the sewage which is here poured into the river. I see in the not distant future a dense population, double, quadruple, the present number, in the manufacturing city of Troy and in the young city of Cohoes, with its matchless water-power. West Troy will have its population largely increased, and the beautiful hill-sides between that point and this city are yet, I believe, to be thickly populated. All this drainage will flow into the Hudson River only a few miles above us, tainting its waters and rendering them each year more and more unfit for domestic use. It is a notorious fact that even now the drainage from a large and rapidly-increasing population flows into our present source of supply. This should be remedied at the earliest possible moment. The very fact that it has continued till it has become so serious a matter shows culpable carelessness somewhere. This Society should take such action as the importance of the subject demands."

Dr. W. G. TUCKER read a paper on the analysis of river-water. "This," he said, "contains organic matter generally in much greater proportion than spring-water does, because of the surface-drainage passing directly into rivers. Inorganic matters which they contain are of little moment except as they affect the hardness of the waters. Organic matters, from various sources, are diffused through the water, and, being brought into contact with the oxygen contained therein, gradually change into carbonic acid, ammonia, nitrates, and nitrites. Thus the oxygen in water plays an important part in the purification of water. This is especially important where rivers receive, in addition to surface-drainage, a large amount of sewage from towns, and in hot weather, especially, this natural process of purification is inadequate to prevent a putrefactive change.

"The wholesomeness of water appears to be intimately connected with its state of aeration, as the proportion of oxygen is liable to be lessened by the decomposition of organic constituents.

"Thames water was examined at various points by Miller, and the proportion of oxygen contained in it ten miles above London was normal; three and three-quarter miles below it was very greatly diminished, and fifteen miles below it was very much restored to its natural condition, though not entirely. This was due to the pouring into it of organic matter from the city, to the destruction of which oxygen was necessary. These examinations show that water is wholesome much in proportion to its degree of aeration.

"Hudson River water was examined by Dr. Tucker by what is known as the permanganate test, which is based on the oxidation of organic matters, this being preferred as the most delicate. During October and November last he made several examinations, with the result that about four-tenths of a grain was liberated to oxidize the organic matter in one gallon; city water examined at the same time required one-eighth of a grain per gallon. Early in February, river-water required sixteen one-hundredths of a grain, city water seven one-hundredths; in April, thirty-three one-hundredths of a grain was required for river-water; city water was not tested at this time.

"Prof. Nichols, of Troy, examined, by the same test, water from the river above Waterford bridge, and that in the Troy reservoir, and found a proportion in favor of the latter of 1 to 4. Other properties of the river-water are a yellowish-brown or green color; it is turbid, with considerable sediment on standing; it contains ammonia in traces; its hardness is 3.9 degrees, city water averaging 5 degrees. Prof. Maynard, of Troy, found 4.94 grains of solid matter per gallon, 1.08 grains being organic; and he expresses the opinion that the waters of rivers receiving sewage are unfit for domestic use.

"The examination of water made by Prof. Chandler," Dr. TUCKER said, "does not fairly represent the character of the water, because the sample was taken from under the ice in the latter part of the winter, when, being at a low temperature, it would hold less in solution than during the summer. There is also at that season much less opportunity for foreign matters to get into the water. Prof. Chandler's report gave, however, at this season, seven-tenths of a grain per gallon of organic matter."

Dr. TUCKER believed that taking river-water for a city supply involved a great risk. A single analysis is not sufficient to determine the purity of the water, but it must be examined at different seasons, states of the weather, and stages of the river. The examinations already made do not warrant its use.

Mr. G. MICHAELIS, by a vote of invitation, remarked as follows:

"Gentlemen:—It is not the place here, to give you a review of the chemical and mechanical properties of the water; it is another point altogether which we have to take in consideration, and that is the purity or impurity of it.

"All waters, river-water as well as well-water, are powerful solvents of the ingredients of the soil, and contain therefore a variable quantity of the salts which are frequently found in it. They are principally chloride of sodium, sulphate of lime, magnesia, salts, and so forth, which give the water, especially when it contains carbonic acid, a refreshing taste, and there is no doubt that they have a healthy influence on the human body.

"But all waters, no matter whether river- or well-water, contain more or less organic matter, and it is supposed, to a certain point certified, that the latter is obnoxious to the human body, and produces sickness. The sources wherefrom the organic matter in rivers come are well known; they are, principally, the sewage and manure of the towns and villages through which they flow, consisting of almost everything, urine, fæces, dead animals, and the decay of the plants of the stream. A water thus impregnated is undoubtedly not very healthy.

"On the other hand, speaking of well-water, we must state that wells in cities are very quickly spoiled by infiltration of manure, and thus become bad.

"I made an experiment which showed this in the spring of 1866, when cholera was imported from Russia to Germany. This raised general alarm throughout the country, and more so since some prominent physicians

supposed that the ground-water had something to do with the spreading of the disease. I was at that time in Posen, a city of about 65,000 inhabitants, in the chemical laboratory of Dr. Mankiwich, occupied as his assistant. This gentleman received an order from the city authorities to analyze the water of the city wells. A thorough investigation proved that nearly one-third were in a bad condition and entirely unfit for use, but some of the wells, even those with a large amount of organic matter, appeared clear to the eye, while others had a good taste and very little smell. An analysis made of the water of the river Warthe proved that it was in at least as good a state as the wells.

"We must understand that there are two distinctly different organic matters in the water: such are those dissolved in the water and those only mechanically suspended in it. The mechanically suspended matter can be easily eliminated by a careful filtration, as filtering through gravel or sand and charcoal, but the greater part of organic matter is dissolved in the water and cannot be separated by mere filtration. It is beyond doubt that the dissolved organic matter is the source of the bad odor and the yellow, brownish color. Pure water is colorless. Now, the question is, whether there is a possibility of eliminating the dissolved organic matter or not. This question was satisfactorily answered by Prof. Medlock. This gentleman was requested in the year 1856 by the Amsterdam Water Company in Holland to analyze their water and to find the cause of the bad smell and fishy taste. (I wish you to understand that the water in Amsterdam is let through iron pipes.) Medlock received five samples of water for analysis, four of them from pipes in the city, and one before the water entered the reservoir of the company.

"In the water from the works before it came in contact with the iron reservoir and pipes, this chemist found 0.95 grains of iron, while in the other samples the iron was reduced to an unweighable trace: thus, instead of taking up iron from the service-pipes, it was not alone diminished, but even all precipitated. Notwithstanding the almost entire precipitation of the iron actually in solution in the water which had passed the iron pipes, it formed an objectionable red deposit on standing, while the water from the works before entering the pipes, holding in solution nearly one-half grain of iron per gallon, formed no deposit. He examined the deposit chemically and microscopically, with the following result: On ignition the precipitate charred and was almost entirely consumed, showing that it consisted of organic matter; under the microscope the deposit was seen to consist of plants in various stages of decay; many of the fibres had even retained a perfectly organized structure. He remembered the important fact established by Schönbein, that copper and platinum can convert ammonia into nitrous acid, and he found that iron also transforms ammonia into nitrous acid, and by further investigation he found that strips of sheet iron placed in water containing ammonia or organic matter capable of yielding it act almost as quickly and well as the metal in a finely divided state.

"Now he made different analyses with water brought in contact with iron, and water in no contact with iron, and the result was, that while the water which was not brought in contact with iron contained 2.10 organic matter and 0.96 iron, the other contained only an unweighable trace of both, which showed plainly that the organic matter contained in the water was either decomposed or thrown down (rendered insoluble by contact with iron); and actually this water when filtered was clear, of good taste, had no smell, and was free from organic matter.

"All organic matter either contains nitrogen or is non-nitrogenous. The latter consists almost always of carbon, oxygen, and hydrogen, and is very quickly, as soon as it is no more under the vital influence, converted into carbonic acid and water. The nitrogenous matter is mostly of animal origin, and consists of nitrogen, oxygen, hydrogen, and very often sulphur and phosphorus, and is dissolved or suspended in water, very rapidly decomposed into gases very offensive to taste and smell, and undoubtedly very obnoxious. But all these are immediately destroyed by the presence of nitrous acid. Medlock proved, as before stated, by a series of subsequent analyses, that iron produces nitrous acid by its action on the nitrogenous organic matter, which is the most destructive power nature has. Muspratt calls it 'Nature's scavenger.' This chemist found as a general result that by allowing water to be in contact with a large surface of iron, in about forty-eight hours every trace of organic matter was either destroyed or rendered insoluble, in which state it could be purified effectually by filtration.

"I did the same way with our Hudson River water, and obtained the same results. After subjecting the most filthy water to the influence of iron sheets for forty-eight hours, I found that it was almost entirely freed of all organic matter.

"I submit to the honorable Society some samples of Hudson water which I treated in a similar manner; and it can be easily seen that the iron sheets have had some influence on it: there is a decided deposit.

[Specimens of water treated with iron sheets, which appeared to be perfectly pure, were exhibited.]

"It would be perhaps of some value if similar researches should be made, and, in case the results should be favorable, it would not make any difference wherefrom we receive the water, as long as we are able to purify it in such a manner as to render it a wholesome beverage for the community.

"The experiment shows the existence of organic matter in the river-water."

Dr. SABIN said that analyses which had been presented showed the water opposite the city not sufficiently pure for use: he thought the best plan was to take water from the river just below the State dam above Cohoes and Green Island. At this point it is purified by running over the dam. He proposed that a large well be sunk at this point; that it be stoned up at the bottom with loose stone within ten feet of the top, the rest being cemented and built above high-water mark. By this means water will be taken from the bottom of the river, and also filtered, while the top floats off.

Dr. WILLIAM HAILES spoke of experiments which had been made to purify water, showing it to be a fallacy that water is purified by flowing over a dam. Pure water mixed with fecal matter in vessels, and poured day after day over a rough board, allowing it thereby to be most intimately mixed with air, at the end of two weeks was still found impure. It is also a fallacy that digging wells and so filtering purifies water, as it has been proved that filtering does not purify it. The germs of disease are not removed by it. He thought that river-water here, and even at the State dam, is unfit for use.

Dr. CROTHERS followed in an admirable address, for which we have not room.

Dr. JAMES S. BAILEY remarked that he had been much interested in what had been said, especially in the careful analyses of the chemists; but it had occurred to him that they might be more technical than practical. The air we breathe might, by analysis, prove to contain deleterious elements, but still we live and apparently enjoy health. So with river-water; it undoubtedly contains organic matter, but when taken into the stomach does not prove deleterious to animal economy. He had known persons—in fact, whole families—to drink river-water constantly with impunity, and from South-

ern waters, which were known to be more deeply impregnated with earth and vegetable matter than the water of the Hudson. He had known families to use water from stagnant pools covered with green scum, by brushing this aside, and the water, when used, did not produce unhappy results. There are processes in nature —chemical processes, really—by which water is purified, which is exemplified in the commingling of the waters of the Mississippi with those of the Ohio at Cairo, one coming from the limestone country, and the other laden with earthy matter, which when united had the desired effect of producing a chemical change, in fact, a filtering process; and it is a fact well known by river-men that water in this vicinity is unusually pure and wholesome.

The city of New Orleans is supplied with river-water, and it is known to be one of the healthiest cities in the Union, aside from epidemic influences; and by way of illustrating the turbid character of the water he would say that when last passing through that city he wished to enjoy the refreshing influence of a bath. After finishing, he had a desire to see how much impurity it contained, and was surprised to find a deposit of two inches of mud in the tub after the water was drawn off. Alum was used there to deposit the sediment.

Dr. CRAIG said the Hudson River water had been used for very many years for drinking purposes; ships going to sea came up into the Hudson River and took their supply. He said the Hudson River contains a volume of water four times as large as the river Thames, and the city of London is supplied from the latter. He thought the Society should not be hasty in its judgment, or too ready to condemn the source of supply.

Dr. DAVIS remarked, "The statement made here this evening that river-water has been used with impunity, and is therefore innoxious and wholesome, reminds me of accounts given by travellers of some barbarous tribes who habitually eat their food in the most offensive state of putrefaction and decay. Civilization, with its overtasked brain and nervous system, can never withstand such vile and unwholesome food. No more can we long endure the baneful influence of river-water filled with putrescent vegetable and animal substances drained from an extensive region of country, and to which is added the sewage of cities holding in solution vital and putrefactive animal poisons, without subjecting ourselves to the natural and inevitable consequences of taking into our systems those active morbific agents which have ever proved most destructive to humanity. The rivers are the common receptacle of every unclean thing; and when the shores are covered with the dense population of large towns and cities, the sewage of every dwelling, prison, hospital, and sick-room is mingled in the general mass of its impure waters, containing epidemic, contagious, and infectious elements. Chemistry has its range and its limits, and has never been able to detect those attenuated and subtle principles that produce the desolating ravages of cholera, cerebro-spinal meningitis, smallpox, fevers, and numerous other diseases; and yet than their existence no truth in the whole history of medicine is better established.

"I hope this Society will place upon it their disapprobation, and will express with emphasis their answer, No."

On motion, it was decided to continue the discussion at the semi-annual meeting to be held on the 10th of June.

THE PULSE OF VARIOUS ANIMALS.—Vatel, in his "Veterinary Pathology," gives our domestic animals the following pulse: Horse, from 32 to 38 pulsations per minute; ox or cow, 25 to 42; ass, 48 to 54; sheep, 70 to 79; dog, 90 to 100; cat, 110 to 120; rabbit, 120; Guinea-pig, 140; duck, 135; common fowl, 140.

REVIEWS AND BOOK NOTICES.

A GUIDE TO URINARY ANALYSIS, FOR THE USE OF PHYSICIANS AND STUDENTS. By HENRY G. PIFFORD, A.M., M.D., Physician to the Charity Hospital, to the New Dispensary for Diseases of the Skin, etc., etc. 8vo, pp. 88. New York, William Wood & Co., 1873.

We are glad to welcome this manual with the same hope expressed by the author in his preface, "that the simple and easy manipulations described may encourage the more frequent and more thorough investigation of the urinary secretion," although it contains little that is not elsewhere published. We have good reason to know that the accurate investigations implied in a knowledge of these manipulations are rather distasteful than otherwise to the average American student; for we have attempted to teach them in a large medical school, in which, however, attendance on the course was not compulsory to the class, and have sometimes found ourselves teaching to almost empty benches. Not until by preliminary examinations we sift the wheat from the chaff will the average medical student seek any further instruction than such as will aid him in his final examination.

The book is convenient in form, and the processes described are in the main reliable. We cannot believe, though, that the author has had much experience in testing for the bile-acids, or he would not have been so brief in his treatment of this subject. It is true he says that *sometimes* the bile-acids may be detected in urine by Pettenkofer's test directly applied to the suspected urine. In many trials we have *never* been able to prove the presence of the bile-acids in urine by the direct application of Pettenkofer's test, *even when we have added human bile* to the urine previous to testing. The bile-acids must first be *extracted* and obtained in colorless solution, either by evaporating to dryness, extracting with absolute alcohol, precipitating with ether, redissolving in distilled water and decolorizing with animal charcoal, or by the still more accurate methods of Hoppe-Seyler and Gorup-Besanez, before Pettenkofer's test can be applied.

Containing seven chapters, the first is the introduction, the second describes *apparatus*, the third *reagents* and *standard solutions*, the fourth *color, reaction, specific gravity*, and *estimation of solids*, the fifth *estimation of normal constituents*, urea, uric acid, etc.; sixth, *abnormal constituents;* seventh, the detection of *medicinal and other substances* in urine, including iron, lead, and mercury.

We would have confined ourselves to the metric system of weights and measures; for it is only by persistently adhering to it, and as persistently ignoring the English system, that scientific men can expect to secure its ultimate adoption. The book should be in the hands of every American practitioner and student.

THE COMPARATIVE MERITS OF CRANIOTOMY AND THE CÆSARIAN SECTION IN SMALL PELVES. By J. S. PARRY.

This is a reprint of Dr. Parry's paper read before the Philadelphia Obstetrical Society, and published in the *American Journal of Obstetrics* for February, 1873. A more clear, searching, and practical paper has seldom been read before that body. Its text—a case of delivery by craniotomy through a pelvis of one and a half inches antero-posterior diameter, at the Philadelphia Hospital, by the author—is told in forcible and graphic language, and followed up by arguments and statistics which serve conclusively to prove the vast superiority of the Cæsarian section in pelves below two and a half inches, and still more, if admitted, to make it obligatory on us, as an act of justice, to urge and insist upon

the performance of this operation in any such case which may fall into our hands.

Dr. Parry in his case found the cephalotribe of less use than its advocates would claim, and shows that, so far from obviating the necessity for Cæsarian section in many small pelves,—below two and a half inches antero-posterior diameter,—its usefulness diminishes as the antero-posterior diameter falls below this measurement. In this opinion he is supported in an article recently published by Dr. Munde, in the *American Journal of Obstetrics*, May, 1873, where, drawing his experience from the Vienna schools, Dr. Munde advocates the use of a modified and enlarged cranioclast on account of this very difficulty of applying the cephalotribe. Dr. Munde, however, admits that he is unacquainted with the cephalotribe of Braxton Hicks; though we think this detracts but little from the value of his observations.

We are convinced, however, that somewhat more than unanswerable argument will be required to make the Cæsarian section the universal resort. The battle of ovariotomy will have to be fought again on many fields before the ordinary practitioner will give up craniotomy and adopt an operation which, where unsuccessful, leaves so many external marks of violence; lacerations of the uterus, penetration of the peritoneum, bruises and sloughing from undue pressure and traction, are concealed; seldom do prying eyes see the hidden injury; and then the euphemism of child-bed fever or its synonymy comes and covers all from those idle eyes and equally idle tongues. It takes time as well as conviction to bring about radical reforms, in practice as in everything else.

GLEANINGS FROM OUR EXCHANGES.

Leprosy in the West Indies.—The subject of leprosy in the West Indies, though it has, perhaps, excited less attention than in the East, has always been looked upon with interest,—an interest which the reported cures of what was considered an incurable disease by Dr. Beauperthuy by no means served to lessen. Dr. Gavin Milroy, at the suggestion of the Royal College of Physicians, was sent out by the Colonial Government; and it is from his report, which now lies before us, that we extract the subject of this notice.

Dr. Milroy appears to have first of all visited British Guiana, near the capital of which is situated the principal leper-asylum in the colony. This at the time of visitation contained two hundred and six patients, in all stages of the malady. Most of these were colored, only one European being found among them, and his case was a doubtful one. The facts here collected tended to establish the belief, already generally entertained, that the disease is not transmissible by ordinary infection. Leprous patients continue to sleep with those who are sound, and even sexual intercourse seems to have no power of communicating the complaint. Hence the belief that it arises from causes dependent on climate or food; and the belief has long prevailed that the extensive use of poor food, especially salted fish, in these parts, had something to do with its continuance and spread.

The forms of leprosy seen were of the tuberculated and non-tuberculated kind. In some the anæsthesia had been so strongly marked as to occasion injury to the hands in cooking their victuals, no intelligence being conveyed of the sensation of over-heat even by the burned fingers. Most of the cases seen under the care of Dr. Beauperthuy were in the earlier stages; those well advanced were rejected as unfit for treatment. Dr. Milroy in his inquiries was strongly impressed with the view that in many respects leprosy and scrofula were closely allied, and this idea was strengthened on finding that in both Guiana and the West Indies leprosy went by the name of "king's evil,"—the old name for scrofula in this country. In both there is marked want of "power" or "tone," with feeble action of the heart, and an exsanguine condition of body. The ulcers, too, resemble those found in scrofulous subjects, and the well-known enlargement of the lymphatic glands in leprosy would probably be considered another point of resemblance. At the same time, the spread of scrofulous diseases in Demerara and the West Indies has recently been marked as decidedly on the increase.

Naturally, one of the most important inquiries we can make is as to the contagious character of the malady. On this point a sufficiently large accumulation of evidence has been made to enable us to come to some conclusion. It is true that in many parts of the West Indies and in Guiana the belief in the possibility of transmitting leprosy from one individual to another has been entertained; but a strict examination into circumstances tends clearly to the opposite belief. True, certain isolated cases have occurred where direct transmission may have been possible; but the mass of evidence undoubtedly goes to show that leprosy is not capable of communication even by sexual intercourse. It has been supposed that the inoculation of the blood of leprous patients might be capable of transmitting the malady; but in the case of a medical practitioner who cut his finger in an operation on a leprous subject, no such unfortunate result followed. He was unable to attend to his wound for a time, and, apparently as a consequence of this, erysipelas and destruction of the parts followed, so that the finger had to be removed; but no constitutional evil resulted.

But, if not contagious, how is the malady spread? On that, too, there seems a singular unanimity of opinion, if we may judge by Dr. Milroy's report. If not entirely caused, the malady is greatly favored, by the bad food and unhygienic condition of the lower orders, among whom the disease almost entirely prevails. In Demerara the aboriginal inhabitants, who lead healthier lives than the imported negroes, coolies, or the lower classes of the Creoles, do not suffer. Everywhere in these regions the diet of the poor seems to consist mainly of salted fish,—at no time a nutritious kind of food, and even then often inferior in quality. Sometimes a little salted beef or pork is added in the form of soup, but fresh meat is rarely, if ever, tasted. As the salt fish can only be looked upon in the light of a condiment to flavor the other constituents of diet, the negroes seem to favor the highest-flavored—*i.e.* the worst—varieties; though when they get the chance they are greedy after fresh meat. Invariably leprosy seems to be fostered in its onward progress by bad food, and retarded by better quality of diet. However, as matters now stand, there seems to be a difficulty in getting meat in the fresh condition. Sheep are imported into Guiana from New York or Boston, cattle from the Orinoco. Some are raised in Porto Rico, and many more might be so in Dominica. Meanwhile, the business seems neglected, and the poor suffer in consequence. For the same reason, milk is not readily attainable; and even the substitution of fresh fish for salt, though apparently easy, is not much carried out.

One great object of Dr. Milroy's mission was an inquiry into the possibility of curing this malady on the plan proposed by Dr. Beauperthuy. This gentleman founded his treatment essentially on the principles already laid down as to the causation of the disease. The first thing to be done was to improve the dietary. Whenever the food has been improved, the lepers have improved also, and this, too, without any other medicines being employed. For the means of making such an improvement Dr. Beauperthuy stipulated when he took charge of the trial made in Guiana. Internally he gave

one-eighth of a grain of corrosive sublimate twice a day, sometimes with a dose of carbonate of soda, and this was continued until the mercury began to show its constitutional effects, when it was replaced by quinine, and later by iodide of potassium. Unfortunately, Dr. Beauperthuy did not live to complete his work, which he seems always to have considered experimental, and not final, so that even his final conclusions were of necessity imperfect. Locally he employed almost solely cashew-nut oil, which was applied to the tubercles or anæsthetic spots. This oil is a powerful counter-irritant, and may give sharp pain. By it the epidermis is removed, and to the raw surface strong lime-juice is applied. This plan of treatment, according to Dr. Milroy, is decidedly encouraging. By it tubercles are removed and anæsthetic spots rendered sensitive. Dr. Milroy, however, decidedly objects to the too prolonged use of mercury internally. Dr. Beauperthuy is no more; but his good deeds live after him, and we cordially endorse Dr. Milroy's warm praise of a man who devoted so much pains to assist a class so proverbially outcast as the leprous.

Dr. Milroy's report also contains some information as to the peculiar malady called the "Yaws," which, however, space forbids us in the mean time to reproduce.—*Medical Times and Gazette*, May 31.

MISCELLANY.

As we go to press, we learn that the trustees of the Jefferson College failed to elect a successor to Professor Pancoast. It is said that there were eighteen ballots, on the first of which Dr. William Pancoast received five votes, thirteen trustees being present. Subsequently Dr. William W. Keen obtained six votes. The closing ballot is said to have stood—Dr. Pancoast three votes, Dr. William S. Forbes six votes, Dr. Keen four votes. During the balloting Drs. Brinton and Hewson received some votes. The matter stands over until October. Professor Pancoast, we believe, is to be asked to lecture next winter.

The terrible physical sufferings endured by the Parisians and shared by many unfortunate foreigners who happened to be within the iron belt during the siege of the Gay City by the Teutonic forces, have become a matter of history. Not so the mental horror which must since have preyed upon many a sensitive organization on perusing the recent account of the trial, in Paris, of a wretch for selling pies made of human flesh during the bombardment. Meat pies, even in times of peace and plenty, amidst a great centre of population, are at once a mysterious effort of perverted ingenuity, and a hazardous investment; although the worst usually said of them may be that feline or canine choppings form their chief ingredients. There is something so utterly horrible in cannibalism, even although inadvertent, and in the deliberate calculation of this Parisian monster, that we do not wonder his unnatural crime, in exciting the utmost loathing throughout France, has enveloped the perpetrator with crushing punishment.—*Food Journal.*

Dr. David Page Smith, of Springfield, Mass., has been nominated to the corporation of Yale College for the professorship of the theory and practice of medicine, recently vacated by Professor Ives.

Weekly Return of Deaths and Interments in Philadelphia for the Week ending Saturday, June 21, 1873.

Diseases.	Adults.	Minors.	Diseases.	Adults.	Minors.
Apoplexy	6	...	Hemorrhage	2	...
Burns and Scalds	...	2	" from Uterus	1	...
Cancer	1	...	Hooping-Cough	...	4
" of Lungs	1	...	Inanition	2	6
" Ovaries	1	...	Inflammation of Brain	2	10
Casualties	5	2	" Bronchi	1	...
Cerebro-Spinal Meningitis	2	12	" Heart	1	...
Cholera Infantum	...	15	" Liver	2	...
" Sporadic	1	...	" Lungs	4	2
Child-Bed	1	...	" Peritoneum	7	1
Cirrhosis of Liver	3	...	" Spine	...	1
Congestion of Brain	5	4	" Stomach & Bowels	1	...
" Lungs	...	1	" Uterus	1	...
Consumption of Lungs	36	8	Mania a potu	1	...
Convulsions	1	11	Marasmus	1	12
Croup	...	3	Measles	...	1
Cyanosis	...	3	Neuralgia of the Heart	2	...
Debility	8	9	Old Age	7	...
Diarrhœa	1	1	Paralysis	8	...
Diphtheria	...	4	Rheumatism	1	...
Disease of Brain	1	...	Smallpox	1	...
" Heart	4	1	Softening of Brain	2	...
" Kidneys	2	...	Sore Mouth	...	1
" Lungs	1	...	Still-Born	...	22
Dropsy	3	2	Suicide	2	...
" of Abdomen	1	...	Sunstroke	1	...
" Brain	...	4	Tabes Mesenterica	...	1
" Chest	1	...	Teething	...	2
Drowned	1	2	Ulceration of Bowels	2	...
Dysentery	...	1	" Lungs	1	...
Enlargement of Heart	1	...	" Œsophagus	1	...
Erysipelas	1	1	Ulcers	1	...
Fatty Degene'n of Liver	1	...	Unknown	1	...
Fever, Catarrhal	...	1	Uræmia	2	...
" Scarlet	1	7			
" Typhoid	8	2			
" Typhus	3	...			
Totals				159	159

Meteorological Observations taken at the Signal Office, Philadelphia, during the Week ending Saturday, June 21, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain. In.
June.				
Sunday 15th	29.90	69	Cloudy.	.....
Monday 16th	29.86	75	Fair.	.....
Tuesday 17th	29.89	78	Clear.	.....
Wednesday 18th	29.88	73	Clear.	.....
Thursday 19th	29.77	83	Fair, Clear.	.....
Friday 20th	29.76	84	Fair, Clear.	.....
Saturday 21st	29.92	76	Clear.	.....
Means	29.85	77	.....	.....

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JUNE 17, 1873, TO JUNE 23, 1873, INCLUSIVE.

Magruder, D. L., Surgeon.—Granted leave of absence for sixty days, with permission to apply at Headquarters of the Army for an extension of thirty days. S. O. 55, Military Division of the Missouri, June 17, 1873.

Woodhull, Alfred A., Assistant-Surgeon.—Granted leave of absence for twenty days. S. O. 124, A. G. O., June 20, 1873.

Lippincott, H., Assistant-Surgeon.—Relieved from duty in Department of the South, and ordered to the Department of Arizona. S. O. 120, A. G. O., June 16, 1873.

Delany, A., Assistant-Surgeon.—To report in person to the Commanding General, Department of the South, for assignment to duty. S. O. 120, c. s., A. G. O.

Ewen, C., Assistant-Surgeon.—Assigned to duty at Baton Rouge, La. S. O. 95, Department of the Gulf, June 14, 1873.

SATURDAY, JULY 5, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF JAUNDICE, WITH REMARKS ON THE AVAILABILITY OF PETTENKOFER'S TEST FOR THE BILE-ACIDS.

Delivered May 14 and 21, 1873.

BY JAMES TYSON, M.D.,

One of the Physicians and Pathologist to the Philadelphia Hospital.

GENTLEMEN:—A mere superficial inspection of this patient will reveal the most salient symptom of the case,—a symptom which, like dropsy, from its conspicuousness has assumed in the eyes of the uneducated the dignity of a disease. But, although a mere symptom, it is true of it, as of dropsy, that there is sometimes advantage in its study in relation to the different diseases it attends, though in so doing we may appear to assign it an importance which does not strictly belong to it.

This patient, then, as you see, has jaundice, and it is a jaundice not to be mistaken. Not simply have the conjunctivæ a bright-yellow color, but even through the duskiness natural to him as a colored man do we observe the same yellow hue throughout his entire body. Let us read his history, and discover, if possible, the import of this jaundice:

B. B., colored, æt. 50, was admitted to the Philadelphia Hospital May 5, 1873. He is unmarried, temperate, but had syphilis thirty years ago. He is a ship's cook, and has spent most of his life at sea. His present illness began in December, 1872, with vomiting, chiefly of mucus, though after this had continued some time a small quantity of blood was also thrown up. The vomiting first occurred in the morning. At noon he went to his boarding-house feeling very ill, and at half-past six o'clock the same evening he was seized with diarrhœa. His own attention seems not to have been called to the jaundice until three weeks after his illness began.

These symptoms continued, and four days after the vomiting set in, he discharged by his mouth large quantities of pure blood, which coagulated on standing. He says he did not vomit it or cough it up; it simply ran from his mouth; and he thought the quantity a pint and a half.

The diarrhœa continued with interruptions until his admission to this hospital. On admission he was emaciated, his mind clear, his pulse 100, temperature 98°, his conjunctivæ and skin yellow, his tongue coated, and he had had twelve thin, watery stools the day before admission. When the evacuations became more consistent, they were observed to be dark gray in color,—potter's-clay-colored. His urine when viewed in bulk was reddish-yellow, but in thin layers bright yellow in hue; it contained no albumen. Gastric irritability had apparently ceased.

Physical exploration discovered but slight tenderness in the region of the liver. The anterior limits of the liver's dulness were not changed; the superior border being in the fifth interspace, the inferior at a line extending from the free border of the ribs to the median line. Laterally, however, the upper border of the liver was on a level with the sixth rib instead of the highest limit usually assigned in health,—the seventh interspace. The inferior lateral border was at its normal position,—the edge of the ribs. Posteriorly the superior border of the liver was noted at the eighth interspace; the inferior border appeared to be normally situated.

Let us now cull out the most striking symptoms of his history. They seem to be—1. The vomiting of mucus, and the diarrhœa. 2. The escape of blood from the mouth. 3. The jaundice. 4. The slight enlargement of the liver. 5. The presence of color-elements of bile in the urine. Note, also, the long duration of the jaundice, and the absence of pain, of marked tenderness, and of much enlargement of the liver.

In determining the disease of this patient, we naturally hover about jaundice as a centre. Now, what are the causes of jaundice? Unfortunately, they are numerous.

Not rarely jaundice is produced by emotion; it may also have its origin in certain general diseases, as yellow or remittent fever, and sometimes in typhus fever; or it may occur in the course of local disease of other organs, as in pneumonia,—and such pneumonias are generally fatal; but it is clear that we have here nothing to do with any such causes.

The most common causes of jaundice are those which, on the one hand, interfere with the secretion of bile, and thus cause its elements to be retained in the blood; or, on the other, prevent its removal from the gall-ducts, or its reservoir the gall-bladder, and thus permit a reabsorption of its elements by the blood. The result is the same,—a local deposition of bile-pigment in different parts of the body, and its appearance in the various secretions, particularly the urine. It is clear that such disease as causes deficient secretion, or, as it is technically called, *suppression*, must involve the parenchyma of the organ,—*i.e.*, its secreting structure; while *obstruction* will be produced by any affection involving the ducts or gall-bladder, or by any cause pressing upon them, whether it reside in the liver or an adjacent organ. Now, if it were possible, by the examination of any secretion, or otherwise, to settle the question whether the difficulty is one of *suppression* or of *obstruction*, it is equally clear that half of the difficulty in diagnosis would be overcome. Is this the case? Some, as Harley, do not hesitate to say so, while others, as Murchison, deny it. Let us see whether it is possible to determine the actual state of the question.

Harley declares that in cases of *obstruction* and *reabsorption* of bile the biliary acids are found in the urine, but that in cases of *suppression* the biliary acids are wanting in the urine. Now, theoretically this is what we should expect, on the supposition that the bile-acids are, as is generally believed, formed in the liver, since if secretion is interfered with no acids are produced; whereas if bile is secreted and subsequently reabsorbed the acids must be absorbed with it, and may then be thrown off by the kidneys.

Now, what are the means at our disposal for determining the presence of the elements of bile in the urine? To determine the presence of coloring-matter is easy, since, if simple inspection is not sufficient, we have only to place a drop of the urine upon a porcelain plate, and adjacent to it a drop of *nitroso-nitric* acid (the nitric acid is not nearly so satisfactory, especially if the quantity of biliary coloring-matter is small), and allow the two to approach, when, if the coloring-matter be present, a peculiar iridescence is noted, in which, if complete, there appears at first a *green*, which becomes more intense and then passes over into *blue*, *violet-red*, and finally *yellow* or *yellowish-green* again. All of these colors do not always appear, the violet and green being usually longest visible, and the first green the most indispensable. Another method of applying the same test consists in placing a small quantity of the acid (half an inch or an inch in depth) in the bottom of a test-tube, and allowing the urine gently to fall upon it from a pipette. The same play of colors, with more or less completeness, appears at the zone of contact. The reaction, you perceive, is unusually distinct in this case.

The determination of the bile-acids is, however, by no means so simple. Pettenkofer's test for them is familiar to most of you, but if you have no further knowledge of it than is contained in most text-books you will have concluded that its application is a very simple matter. The fact is that it is totally inapplicable to urine or indeed any organic fluid containing bile-acid even in considerable quantity. It is true that a watery solution of ox-bile or even of the inspissated ox-bile of the shops will give the beautiful cherry-red passing over into an opaque purple reaction of the bile-acids on the addition of a drop of syrup and subsequently sulphuric acid, drop by drop, until a bulk is added equal to that of the fluid to be tested. And the same result will sometimes follow the application of the test to urine to which either of these substances has been added. But if the test be applied to urine to which human bile has been added, or even to a watery solution of human bile, no reaction takes place except that due to the action of the acid upon the sugar. Nowhere are the cherry-red and purple colors seen. Evidently some cause interferes to mask the reaction. Nor have any of the modifications of Pettenkofer's recently announced as clinically available proved such in my hands, even where the biliary constituents have been added to urine, except where ox-bile has been used. The method I now exhibit to you is that of Strasburg, and recommended by Brunton in the new "Handbook for the Physiological Laboratory" by Burdon-Sanderson, Klein, and others. The urine to be tested is mixed with a dilute solution of cane sugar, and a piece of filtering-paper is moistened with the mixture and dried. The pieces of paper I now exhibit to you have been thus treated, some with normal urine, and some with the biliary urine from the patient before us. The next step consists in allowing a drop of pure concentrated acid to flow over the paper, when a beautiful purple "should be produced if the slightest trace of biliary acids be present." You observe that none of the papers—either those treated with normal or with biliary urine—exhibit this reaction. So that, if this test be relied on, no biliary acids are present in the urine of this patient. Yet when I tell you that I have thus treated filtering-paper with urine to which bile has been added, and have obtained no reaction with human bile, though I have obtained it with ox-bile, you will understand that this result can scarcely be relied upon. Can the question be settled in any way? I believe it can, but only by extracting and obtaining a solution of the bile-acids as free from color as possible. This may be done in the following manner. Six or eight ounces of the suspected urine are evaporated to dryness over a water-bath. The residue thus obtained is treated with an excess of absolute alcohol, filtered, and the filtrate treated with an excess of ether (twelve to twenty-four times its bulk), by which the bile-acids, if present, are precipitated. These are then removed by filtration and redissolved in distilled water. The solution is then decolorized by passing through animal charcoal, and Pettenkofer's test applied to the resulting colorless fluid. If the bile-acids are present, the cherry-red color will appear before the yellow discoloration due to the action of the sulphuric acid on the sugar.

A most frequent source of error is in the use of too much sugar. Thus, a drop or even two drops are often added of syrup containing so much sugar as to certainly mask human bile-acids if present in small quantity, although the reaction may obtain with the acids of ox-bile. A twenty per cent. solution of sugar should be used, *and of this only a single drop.* The officinal simple syrup is 250 per cent.,—that is, 2½ parts sugar to 1 water; whereas the proportion should be 1 sugar to 4 water. The method described, though somewhat tedious, is practicable even to the general practitioner, and when carefully practised may be regarded as reliable. For although other substances (olein, oleic acid, oil of turpentine, oil of caraway, and, according to Thudichum, also lithafellic acid, and cerebric acid "with rare intensity") have been found to respond similarly, yet these are not likely to be met with under the circumstances named. I might add also that Thudichum has discovered that there is a difference in the spectra of the colored test solutions, the biliary acids showing two bands, cerebric acid and vitellin only one. But these he tells us are difficult to observe, and require sunlight or the oxy-hydrogen light for their complete development.

Now, what are the facts in the case before us? I present you an uncolored solution obtained in the manner described from the urine of our patient. I now add a single drop of the very dilute solution of sugar, and now the sulphuric acid, drop by drop. A considerable bulk has been added, and you perceive no red color appears. Continuing the addition of acid, a yellow color begins to make its appearance. This is due to the decomposition of the sugar by the acid: were the quantity of sugar larger, the yellow would pass into brown.

But I have not relied upon this test alone. Desir-

ing to be absolutely certain, I have asked my friend Dr. Horace B. Hare to treat the urine by Hoppe-Seyler's process, acknowledged to be the most exact method. He has done so, and writes me that "*the urine contained no bile-acids.*"*

We have learned, then, that the bile-acids are *not* present in the patient's urine, and thence, following Harley, we would conclude that the parenchyma of the organ is involved. But the conclusions arrived at in a further careful study of the case are incompatible with this view, in this respect confirming the position taken by Murchison and others. I do not wish to be understood as denying that the bile-acids are ever found in the urine. On the other hand, Hoppe-Seyler has proven conclusively that they do occur; and I myself have found them by the process above described. I simply deny their necessary association with obstruction.

Let us determine the result to which such study leads us. What are the results of *physical exploration?* Palpation, you will notice, exhibits now absolutely no tenderness; and, although percussion shows the superior border of the liver to be somewhat higher than in health, laterally and posteriorly, yet the enlargement is not great, and there is none of that enormous extension of the liver below the edge of the ribs which is common to cancer of this organ. Further, neither percussion, nor palpation, nor, indeed, any of the symptoms, point to tumors of the stomach, pancreas, or other viscera which could produce obstruction of the gall-ducts. The absence of paroxysmal pain would also eliminate obstruction by a calculus. And yet that there is obstruction of some kind is evident from the hemorrhage, which, there is reason to believe, came from the stomach. Cirrhosis of the liver at that stage which would cause congestion and hemorrhage from the stomach by obstructing the hepatic circulation would be attended by diminished size of the organ and diminished area of dulness, and most likely, also, by ascites. These, however, are wanting.

What other symptoms remain to be considered? Only the irritable stomach, the vomiting, and the diarrhœa. But these, in connection with what has been said of the other symptoms, are by no means insignificant; indeed, in my belief they determine the diagnosis,—*inflammation of the biliary passages*, or "icterus catarrhalis with resulting obstruction." This condition is almost invariably preceded by these symptoms of gastro-intestinal catarrh, of which it is, indeed, an extension into the biliary passages. In connection with these, the very marked jaundice, the discoloration of the fæces, the slight tenderness, the small degree of enlargement, the absence of paroxysmal pain and of all symptoms of disease of adjacent organs, together with the absence of grave constitutional symptoms, all point to obstruction, most likely due to inflammation of the gall-ducts,—obstruction notwithstanding the absence of bile-acids from the urine. For, even if our own method be deemed insufficient, that of Hoppe-Seyler, followed by Dr. Hare, is accepted by the most critical as accurate and trustworthy.

The progress of the case, too, adds confirmation to this opinion. Six months have now elapsed since the symptoms set in; and, although the man was very ill on admission, he has greatly improved since under treatment, while the jaundice remains as marked as ever. One feature of the case, however, remains to be noted; and that is its duration. Biliary catarrh is generally a disease of short duration, not often continuing more than a month. But this is not invariable. Da Costa, in "Medical Diagnosis," third edition, p. 535, refers to the case of an adult male, aged 60, which occurred under his care in this hospital, and which terminated fatally. "At the autopsy the gall-bladder was found enormously distended, its coats thin, yet otherwise scarcely abnormal; but the common duct was obliterated by inflammation."

This suggests also the *prognosis*. And, although the disease generally terminates favorably, and our patient has improved under treatment, we fear from its long duration permanent occlusion and an ultimately fatal result. Indeed, the parallel to the case alluded to is a striking one, and I fear a similar termination.

What *treatment* is likely to avail us in these cases? Is it desirable to give remedies to promote the action of the liver, when there is already obstruction to the exit of the bile secreted? We believe not. On the other hand, we should expect by such treatment to increase the congestion, and thus hasten an unfavorable termination. And this is indeed the result of experience. We have already alluded to the frequent dependence of catarrh of the bile-ducts upon gastric and duodenal catarrh. The treatment of one would seem, therefore, to be the treatment of the other,—a conclusion also justified by experience. In the incipiency of the attack an emetic might be useful, which, in addition to relieving the stomach, might, by the jactitation induced, relieve the gall-ducts of a plug of mucus or force the bile past a swollen mucous membrane, and thus relieve the obstruction. When, however, there is permanent obstruction, as we fear here to have been induced, the emetic is of questionable propriety. Purgatives might be used for a similar purpose; but we believe the time for these, except to relieve constipation, is also past in this instance. The alkaline carbonates and the alkaline spring waters, as those of Karlsbad and Marienbad in Germany, and the Saratoga waters in this country, etc., useful in gastro-intestinal troubles, are indicated for the same reason in biliary catarrh. But, the acute symptoms having subsided, they cannot be expected to be of as much service in this case; whereas if they increase the secretion of bile, as is contended for by some,

* The following is Hoppe-Seyler's process, as furnished me by Dr. Hare: "Precipitate with subacetate of lead and ammonia; wash the precipitate somewhat with water; boil precipitate with alcohol, and filter hot. (The alcohol takes out the bile-acid salt of lead.) To this solution, after filtration, add enough solution of caustic soda to decompose all the bile-acid salt of lead. (We now have a bile-acid salt of soda.) This solution is to be evaporated to dryness; residue to be extracted with absolute alcohol. (This takes up the bile-acid salt of soda, leaving the lead behind.) Filter. Precipitate filtrate with excess of ether; allow to stand; pour off supernatant fluid; dissolve precipitate in water, and apply Pettenkofer. Much care is needed in this; for some lead follows on closely throughout."

their tendency must be pernicious. Where there is permanent obstruction, calomel is, for the same reason, interdicted. On the other hand, the removal of the elements of bile by organs supplementally acting should be encouraged. Such organs are the kidneys and the skin. Diuretics and diaphoretics are therefore indicated, and particularly such diuretics as would improve the condition of the blood at the same time. One of these is the solution of acetate of iron in the form of the so-called Basham's mixture.* The ordinary sweet spirit of nitre is a useful adjuvant tending to the skin. A remedy having considerable reputation in all cases of jaundice is nitro-muriatic acid. Its precise mode of action upon the liver is not determined. Niemeyer suggests that it may excite the muscular coat of the bile-ducts to contraction, rather than increase the activity of the liver-cells. Whatever its mode of action upon the liver may be, it is unquestionably an excellent tonic and improver of digestion. Akin to this is the fluid extract of taraxacum. And these remedies in connection with quin. sulph., gr. ij, four times a day, and easily assimilated food,—milk, beef-essence, etc.,—have constituted the treatment of our patient, under which he has greatly improved. He has been taking the acid and taraxacum in the following prescription:

℞ Ac. nit. mur., gtt. cxxviij;
Fld. ext. tarax., fℨiss;
Tr. hyoscyam., fℨss. M.
S.—Teaspoonful three times a day.

The hyoscyamus, fulfilling no special indication, will be omitted from this date, but the acid will be continued in diminished doses (minims x of the dilute preparation with fℨj of the fluid extract of taraxacum), while the nitro-muriatic acid will also be used externally in a foot-bath (fℨss to a bath). His bowels, the discharges from which continue ashen-hued, are kept sufficiently open.

Calomel we will eschew, although he received this drug soon after admission; but this was before his case was thoroughly studied. On admission he also received a dose of castor oil, followed by pills of opium and acetate of lead until his bowels were brought under control.

CONCLUSION.

While this lecture was being printed, the patient upon whose case it was based died; death having been preceded for ten days by a gradually increasing mental hebetude.

Post-mortem Examination, June 25, 1873, twelve hours after death.—Emaciation marked, though not excessive. Connective tissue throughout yellow with bile-pigment, even in the tissue of the lungs, bowels, and peritoneum. The serous fluids were similarly tinged.

Thorax.—There were no adhesions, and the lungs were normal. The heart was also healthy.

Abdomen.—The liver was adherent to the under surface of the diaphragm for a short distance on each side of the normal line of attachment by the suspensory ligament; it was also adherent to the stomach and duodenum, and in separating these adhesions with the finger the latter suddenly penetrated the gall-bladder, from which immediately ran at least twelve ounces of an apparent mixture of blood and bile. Further examination showed the upper boundary of the gall-bladder to be the parenchyma of the liver; that is, the membranous wall of the gall-bladder and the capsule of the liver seemed to be altogether wanting, the cavity of the gall-bladder being as it were an excavation in the structure of the liver, but bounded on its under surface by the proper membranous wall of the gall-bladder, which was much attenuated. Into this cavity opened two large canals of such a diameter as easily to admit the finger,—either large blood-vessels or dilated gall-ducts.

On passing a probe through the common duct it met with decided resistance at a point an inch in advance of the union of the hepatic duct with the cystic duct. To the external touch the hardness suggested a gall-stone about four lines in diameter, but on section it was found to be a cylindrical fibrinous mould of the canal, six lines in length, and in diameter sufficient completely to occlude the duct and prevent the egress of bile from the gall-bladder. Beyond this point, both the hepatic duct and the cystic duct appeared to become flattened, shreddy masses, and could not be traced into the gall-bladder, into which therefore apparently the bile was admitted directly from the liver, the ducts of which were distended and filled with bile throughout. A singular and interesting feature was a distention of the common duct between the point of its opening into the duodenum and the point of obstruction. This could only be accounted for on the supposition that there was also obstruction at this point, and that the secretion of the pancreas which is normally poured out of the same orifice was backed into the common duct as far as the point of obstruction, producing dilatation. That such obstruction at the orifice of entrance into the duodenum should exist is not unlikely, though I regret to say it was not carefully examined, the dilatation not being discovered until the liver and common duct, with a portion of the pancreas, had been removed from the body.

The liver itself weighed 3 lbs. 11 oz. (normal weight 1 lb. 8 oz. to 4 lbs.), and was increased in its vertical diameter, but diminished in its lateral, so that its cubic contents were perhaps about those of a normal organ. It was, however, congested and cirrhotic, and the gall-ducts everywhere distended with bile.

The spleen was enlarged, contained also an excess of fibrous tissue, and weighed 17 oz.

The pancreas was stained with bile, but apparently healthy.

* ℞ Liq. ammon. acetatis, fℨiij;
Tr. ferri chl., fℨij;
Ac. acet. dest., fℨij;
Curaçoæ vel syrupi q. s. ad fac. fℨvj. M.
S.—Tablespoonful three or four times a day.

ICE IN THE RECTUM IN THE TREATMENT OF NARCOSIS OF CHLOROFORM (*Bulletin Générale Thérapeutique*, April 15, 1873).—According to Dr. Baillée, there is no more energetic means of overcoming the narcosis produced by chloroform than the introduction of a small piece of ice into the rectum. It can be pushed through the sphincter without the employment of much force. It immediately melts, producing a deep inspiration, which is the precursor of natural respiration and the re-establishment of cardiac functions. He recommends the same plan to be pursued in cases of apparent death in new-born infants.

POST-PARTUM HEMORRHAGE.—A correspondent of the *Lancet* (May 24) details a case of profuse post-partum hemorrhage which was arrested at almost the last hour by the injection into the uterine cavity of a solution of tannin, containing four drachms to the pint of water.

NOTES OF HOSPITAL PRACTICE.

[Although these cases of Dr. Atlee occurred in private practice, yet the most appropriate place for their record seems to be under "Notes of Hospital Practice." The reports will be regularly continued.]

CASES OF OVARIOTOMY.

BY WASHINGTON L. ATLEE, M.D.,
Of Philadelphia.
Reported by J. Ewing Mears, M.D., of Philadelphia.

CASE 238.—Multilocular ovarian tumor, tapped six times; extensive parietal and omental adhesions; incision five inches in length; death on the eighth day.

June 7, 1871, Dr. Atlee visited Mrs. G., of Brooklyn, in consultation with Dr. W. K. Brown. She was 55 years old. Menstruation commenced at the age of fifteen, and was regular, painful, not profuse, and lasted four days. She was married at the age of twenty-two, had eight children, nursed them eighteen months, and had free lactation. Menstruation was suspended during lactation. The menses ceased at the age of forty-eight.

September, 1869, she was seized with pain in the right side, and in April, 1870, two tumors were noticed by Drs. Sabine and Brown, occupying a central position, inclining towards the right inguinal region. They were hard to the touch, and the patient experienced pains of an expulsive character, with movements resembling those of a fœtus. The tumors were thought to be fibroid, and, by some, malignant, and the fluid, which soon after accumulated, was supposed to be in the peritoneal cavity. November 24, 1870, she was tapped, and four gallons of dark-green syrupy fluid were removed. January 15, 1871, she was tapped again. The fluid was similar in color, but thicker, and containing cheese-like flakes. The tappings were repeated on the 22d of February, the 28th of March, the 22d of April, and the 15th of May,—in all six times. After each tapping a large, solid tumor was detected occupying the right side. It was circumscribed, movable, and not tender on pressure. She always rallied after the tappings, excepting the last one. During the last month emaciation was rapid.

On examination, the patient was found to be larger than a woman at full period of pregnancy, although so recently tapped. She was much emaciated. The whole abdomen was elastic, and more or less fluctuating, but the fluctuation was most distinct throughout the upper portion. The only resonant point was over the left hypochondrium. No ridges or nodules could be distinctly detected, although considerable resistance to pressure could be felt over the lower part of the right side. The lower extremities were swollen, and the hypogastric region was œdematous. The uterus was elevated, and rather fixed in position. The pelvis was free.

Diagnosis.—Multilocular ovarian tumor. Ovariotomy was performed, the following gentlemen being present: Drs. W. K. Brown, D. E. Kissam, W. A. Kissam, H. S. Smith, G. K. Smith, T. Fleet Speir, E. N. Chapman, and J. E. Clark, all of Brooklyn, New York.

On examining the left ovary, a cyst as large as a filbert was found on its distal extremity, and freely incised.

The tumor was multilocular, consisted of the right ovary, and, with its contents, was estimated to weigh about fifty pounds.

Died on the eighth day, of pyæmia.

Dr. S. Fleet Speir examined the tumor after its removal, and reported as follows: "The tumor was found to be a simple ovarian cyst, containing a viscid, glairy, slightly opaque, and albuminous fluid. The envelope was thin in some parts, and in other places thick, and on its inner surface, near its connection with the ovarian structure, there were some hypertrophied villi. On microscopic examination, no evidence of malignant disease was discovered."

TRANSLATIONS.

THE ACTION OF COLD WATER UPON THE SPLEEN.

BY DR. R. M. BERTOLET.

PROF. FR. MOSLER gives, in *Virchow's Archives*, vol. lvii. (1873), Heft 1, the details of a very interesting series of experiments performed upon the lower animals to ascertain the action of cold water upon the contractility of the spleen. The results obtained prove conclusively that a decided contraction of the normal healthy spleen is brought about when cold water, either in the form of the douche or ice-bags, is applied directly to the exposed organ, or simply upon its integumentary coverings; that by the former method a more marked diminution of the volume, a more highly granular condition of the surface of the spleen, is obtained than when the skin is allowed to intervene. The granular condition of its surface, the firm consistence of its parenchyma, and the diminution of the organ, are more marked the longer the time of application. When the cold water is applied to the exposed organ, the appearances presented in it are similar to those observed after the use of large doses of quinine.

The practical upshot of these experiments lies in the fact that Prof. Mosler was led to make a number of most careful observations upon the therapeutic value of cold water in both acute and chronic splenic tumors, and that he finds it a valuable adjuvant to the internal administration of quinia or cinchonia in all such cases.

The beneficial effect of combining these two methods of treatment is conclusively shown in the clinical records of cases of intermittent fever, leukæmia, pseudo-leukæmia, etc., the enlarged spleen in every instance being sooner or later reduced in size.

The cold douche is applied to the region of the spleen twice daily, from 1½ to 2 minutes at each time. The possibility of also obtaining a mechanical effect by the cold douche has led the author to give it the preference to the simple cold compress or lumps of ice.

The results that Prof. Mosler has obtained from his observations and experiments may be thus summarized:

I. Direct contact of cold water upon the normal spleen produces a visible contraction of the organ.

II. A lesser degree of contraction is obtained in the normal spleen when the cold water is applied upon its integumentary coverings.

III. Also in the pathological splenic tumors, acute as well as chronic, the action of cold water is demonstrable in the diminution of their size immediately after its use.

IV. The febrile paroxysms of intermittent fever can be terminated by the cold douche when used one or two hours before the precise time of the expected attack.

V. The cold douche does not deserve the preference to quinine either in recent or protracted cases of intermittent fever.

VI. The curative action of the cold douche in intermittent fever is not complete. It does not always prevent a return, and leaves, also, as does quinine, a chronic splenic tumor.

VII. The splenic tumor of typhus is also diminished by the application of cold water.

VIII. A combination of the application of cold water upon the spleen, either in the form of cold baths, or ice-bags, or cold douches, and at the same time the exhibition of quinine, is preferable in the treatment of acute and chronic splenic tumors to the use of either of these means alone.

IX. In the treatment of chronic splenic tumors, the combination of the application of cold water upon the region of the spleen, with the administration of the much cheaper alkaloid cinchonia, is to be recommended.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, JULY 5, 1873.

EDITORIAL.

WOMEN IN HOSPITALS.

THE vexed question of woman in medicine—her present and future—is a rather warm one for a season so close to the dog-days, but we learn from the *London Lancet* that admission has been demanded by some of the advanced thinkers of Birmingham to all the advantages offered by the Medical School of Queen's College, and that, whilst the proposal has met with a favorable consideration from the teachers of the school, the students are opposed to it. The *Lancet* thinks that neither the parents of the young gentlemen nor the patients of the hospital have been consulted, and, after asserting that they ought to be, says:

"We wish to know whether the male patients of the Birmingham charities are prepared to have catheters passed, hydroceles tapped, or hernias manipulated by the hands of *female* students; for, unless they are, those ladies cannot properly learn their work. We quite agree with the writer we have already quoted when he says:

"'Female practitioners can never be of any use whatever to the public unless they go through exactly the same training, both mental and moral, as their male competitors; and, as in after-life they can never practise any department of the profession isolated from men, it is absurd that they should start and spend the most important part of their professional existence apart from them.'

"All this is perfectly true; but, so long as human nature is what it is, we do not believe decent men will willingly submit to surgical treatment at the hands of the opposite sex."

We ask, Why not? *Chacun à son gout.*

And so said a female medical student in a communication published in an issue of the *Lancet* subsequent to that from which the above quotation is taken; whereupon the editor of the *Lancet* replied:

"We regret to have to put our statement more forcibly and plainly than we did before, but the extreme ignorance or innocence of our correspondent demands it. Our view is that 'so long as (masculine) human nature is what it is,' we do not think male patients can be submitted to manipulative examination by female students without the risk of an involuntary manifestation of excitement which would be painful to both parties."

WE are glad to inform our readers that Professor Ferrier and Dr. Lauder-Brunton, of London, have promised to be regular contributors to our journal. In a letter to the editor, Dr. Brunton, speaking of Professor Ferrier, says, "He has obtained a grant from the Royal Society to pursue his researches on monkeys. Already his experiments on his simian cousins have been commenced, and the results are most satisfactory. He can make an animal follow his command by simply touching different parts of the brain by the electrode, and 'eyes right,' 'eyes left,' 'eyes open,' 'eyes shut,' 'mouth open,' 'mouth shut,' 'tongue out,' 'tongue in,' etc., follow as certainly as the machinery of a London penny steamer follows the commands, 'ease her,' 'stop her,' 'back her.'" It certainly looks squally for Professor Brown-Séquard's theory of the origin of brain-symptoms.

DR. TYLER SMITH, the eminent obstetrician, died suddenly, on the 3d ult., at Richmond, near London, from the effects of cerebral hemorrhage. He had been for some time ailing in health, and indications of Bright's disease of the kidneys and of arterial degeneration had been detected. Subcutaneous ecchymoses, and occasional attacks of severe epistaxis, preceded the apoplectic seizure, which was, however, apparently unexpected, as he was found insensible by the road-side and died in the Richmond Infirmary. His career as a philosophic thinker, an accomplished writer, and a successful practitioner was one of considerable activity and honorable achievement. He is known to the profession through his able monographs on parturition and its processes, and on the pathology and treatment of leucorrhœa, and also as the author of

what was, in its day, one of the best manuals of obstetrics in the language.

OUR editorial upon the use of ether in a recent number of the *Times* has called forth a letter from Dr. R. J. Levis, of the Pennsylvania Hospital, from which we make the following extract:

"I have repeatedly etherized very aged persons, and recognize no manifestations peculiar to them. One of the cases was that of Mrs. Hopkins, No. 545 North Sixth Street, etherized profoundly, at the age of *ninety-six*, and a perfectly successful operation of extraction of cataract performed.

"Another, a patient of the late Dr. C. H. Taylor, of this city, aged *ninety-two*, was etherized to complete anæsthesia and muscular relaxation, and I performed the operation for strangulated hernia, which was followed by recovery."

H. NOAH MARTIN, Professor of Practice of Medicine in Hahnemann Medical College of Philadelphia, has made the discovery that for gentlemen of color no medicine is like unto nux vomica. "Where no indications for any special medicine can be found," he says, "give nux vomica to colored people with reasonable assurance of benefit." Who can sound the depths of human fatuity?

IN a letter to a gentleman living in this city, Professor Alfred S. Taylor, of London, says, "With regard to the Van Ness case, I can see nothing to prove that the symptoms were caused by strychnia. In a new edition of my work on Poisons, which I hope to prepare, I shall examine more minutely these two cases [two Wharton trials.—*Ed. M. T.*], which are very important in relation to medical evidence."

OWING to the approach of the epidemic, we shall devote our next number entirely to cholera.

It will contain a lecture upon the subject by Prof. Stillé, an original article on the value of sulphuric acid as a prophylactic by Dr. R. G. Curtin, and a leader upon disinfectants by Dr. H. C. Wood, Jr., besides a sketch of the present epidemic, and other matters of interest.

WE have to thank Dr. Caldwell for a copy of the constitution and by-laws of the Maryland Epidemiological Association, a recently formed and apparently live society of Baltimore.

CORRESPONDENCE.

LONDON LETTER.

[*From Our Own Correspondent.*]

Professor Sharpey and Professor Owen—The Royal Society—Dr. Radcliffe's Croonian Lectures—The Emperor Napoleon's Sleeve-links—Sir Henry Thompson's Fee—The Contagious Diseases Acts—The Results of their Operation—Parliamentary Division in their Favor—Compulsory Registration of Births and Deaths—New Books—Haughton and Helmholtz on Teleology—Practical Physiology.

I HAVE not before me a copy of my last letter, and do not very clearly remember to what date my chronicle of recent events has been brought. The most recent of minor events are the promotion of Professor Owen to the Commandership of the Bath, the operation on Professor Sharpey, our dean of physiologists, for cataract, and the presentation of the Emperor Napoleon III.'s sleeve-links, set in a gold box, to Sir William Gull, by the Empress Eugenie. Men of science rarely receive British decorations, and, indeed, many of our highest savans have followed the example of Faraday in refusing them. There is no special order of merit for eminence in science and literature; and when knighthoods and baronetcies are conferred the savant commonly finds himself on his way to Windsor or Osborne on the same train with aldermen, common-councilmen, provincial mayors, and successful traders, and the honor is considered equivocal. The true title of scientific honor here is F.R.S., and the fellowship of the Royal Society is the most creditable title of nobility which can be attached to a man of science.

At the last election into the Royal Society very few medical men were admitted, and those chiefly on other than purely medical grounds. Sir Alexander Armstrong was admitted as head of the Naval Medical Department, Dr. Roylston Pigott as a greatly accomplished mathematician and microscopist, and Dr. Aitken, Dr. Paget, and Dr. Beddie, as possessing official or scientific claims apart from merit as practitioners. Dr. C. B. Radcliffe, well known in both hemispheres as an eminent physician and physiological inquirer into the electrical conditions of nervous and muscular action, has been long a candidate, and hoped this year for admission, but vainly. Ingenious as are his theories of muscular contraction, they are opposed to the conclusions of all other electro-physiologists, and are looked upon as illogical and wholly unsound. But his fate was sealed by his recent Croonian Lectures at the Royal College of Physicians, this year, on Certain Nervous Affections of the Brain and Spinal Cord, which have been printed in two of the weekly medical papers. The first of these was heard and read with ineffable bewilderment by his grave auditory at the College of Physicians. It was nothing else than a direct manifesto in favor of spiritualism. Mind, he declared, preceded matter, in his belief, and had a separate existence outside it: he inclined to the view that the two were in a mystic relation of cause and effect, mind

being capable both of forming matter and of sphering or encysting itself outside of matter. The whole lecture must be read to be appreciated; but rarely has so much crude hypothesis of undigested metaphysical character been brought before an intelligent professional audience. The lectures were given just before the election of the Royal Society, and, although they have given a great deal of satisfaction to the mass, who regarded them, oddly enough, as having a religious tendency and serving as a protest against "a growing materialism," they have decided unfavorably Dr. Radcliffe's scientific pretensions. Sir Henry Thompson was "up for election;" but this was his "first time for asking," and the Royal Society expects the banns to be put up at least twice, and usually three times.

Apropos of Sir Henry Thompson, it may be mentioned that the current gossip here is that he has been rather "jockeyed" in the matter of the presentation of Napoleon's "sleeve-links in a gold box" to Sir William Gull, which has been solemnly announced in all the papers. Sir Henry had received some very handsome recognitions of the Empress's appreciation of his skill and devotion,—among these, a unique example of ancient Chinese art, a box of great size, in superb "lacquer," part of the spoils of the summer palace of the Emperor of China, removed from Fontainebleau. The Empress had shown it to Sir Henry Thompson during his stay at Chiselhurst, and, as he is an accomplished artist, and lover of art, he expressed his warm admiration of it in terms which showed that his appreciative power was equal to his warmth of admiration. The Empress subsequently requested his acceptance of it, accompanying the box with a graceful autograph letter which conveyed the intimation that the box had been in two palaces,—of China and of France,—the fortune of war had twice uprooted it, and now she hoped he would value it sufficiently to give it a quiet resting-place in the country which was the asylum of kings and the resting-place of the exiled. Sir William Gull gracefully waived, it is stated, all claim to outstanding fees, amounting, however, to a comparatively small amount; and the sleeve-links represent the imperial thanks. Sir Henry refused, it is said, to accept more than one-half of a check for two thousand guineas which was handed to him for his services.

We are now at the Whitsuntide holidays, and thus have notice that the active season is drawing to a close. Already the Pathological Society has ended its sittings, and the other societies are at their last meetings. Parliament has nearly ended its active labors. We are for the most part thankful to it for what it has done in rejecting the proposal to repeal the Contagious Diseases Acts. These Acts, as you are aware, provide that in garrison towns every known prostitute shall be liable to periodical examinations by public surgeons, with a view to prevent and cure venereal affections to which they are liable, and which, through them, cause a large proportion of sickness and inefficiency in the military and naval services. A most fervent and powerfully organized opposition has been carried on now for several years,—so loud, so active, so ubiquitous, and so lavish of expenditure that it reminded one of the political leagues of earlier days; and it was reinforced with great draughts of power by the leading nonconformist clergy, as well as by many dignitaries of the Established Church. Mr. John Stuart Mill and the Rev. F. D. Maurice were the most respectable of the opponents of the Acts; and a great number of ladies, including Miss Nightingale, have waged unceasing war against them. The medical profession were in their favor almost to a man; but a sort of terrorism has been exercised which, it was fully anticipated, must lead to repeal. The women, the laboring-men, and the religious classes having been united in a vigorous crusade against the Acts, it was feared that the members of the House of Commons would succumb in large numbers to the electoral pressure put on them on the eve of the now approaching dissolution of Parliament; but the press has been almost unanimous in supporting the Acts, and the figures which were published prior to the debate were so strongly illustrative of its sanitary benefits that their eloquence reinforced the courage of the supporters of the Acts, and a decisive battle was won in their favor. No doubt, however, the contest will be renewed at the hustings, and some seats will be lost over it.

A bill is before Parliament which will make our vital statistics very complete. They are already highly valuable, and more reliable than those of any other European nation, but they are vitiated by insufficiency of registration of deaths in cases where no medical man has been in attendance. The present bill, which has passed through the House of Lords and is now before the House of Commons, makes the registration of all births and deaths compulsory. It does not, however, provide for the payment of medical men for their certificates, but demands it of them, as a duty to the state; and this view of the case is being energetically contested by the British Medical Association, which possesses great Parliamentary influence. Those of your readers who have a turn for vital-statistical discussions will find, I may mention, a most trustworthy and readable abridgment and analysis of the two heavy folio volumes (pp. 614 and 576) of the last English census in a thin octavo recently published by Messrs. Stanford & Co., from the pen of Mr. James Lewis, of the General Register Office. It is entitled "A Digest of the English Census of 1871." The published official returns of the census of 1871 may be had of the Government printers by those who desire all the details. While mentioning books, I ought to speak to you of one which is not, perhaps, likely to receive the notice which it deserves, owing to its rather abstruse character. It is Haughton's "Principles of Animal Mechanics." The author is the Rev. Professor Haughton, M.D., D.D., F.R.S., Registrar of Trinity College, Dublin. He possesses remarkable qualifications, and has produced a very noteworthy volume. Dr. Haughton is equally accomplished as a divine, a naturalist, a physician, a mathe-

matician, a politician, and a wit. He is, you perceive, a sort of Admirable Crichton,—not by affectation or pretension, but by natural ability and extraordinary quickness of intellect, combined with great industry and general sympathy with all classes of minds. He is perhaps especially eminent as a geometrician and a naturalist. In this book he has worked out by geometrical methods of great beauty and originality the solution of some very difficult problems, and has aimed at completing the work begun by Borelli in 1680, in reducing to mathematical form the laws of muscular and osteological construction in the animal kingdom. Among the more interesting chapters of the book are those in which the author discusses the hip-joint, showing that the centre of the acetabulum is so placed as to allow each muscle to do the maximum of work; that on the arrangement of the fibres of the heart, in which he arrives at a similar conclusion; and the mechanical investigation of the muscles employed in parturition. Dr. Haughton puts forward a great number of proofs of a teleological postulate that "The Framer of the Universe has constructed all muscles on the principle that each shall perform the maximum of work possible for it under the given external conditions." He finds nothing tentative, nothing useless, nothing imperfectly adapted to its obvious end. Contrasted with this it is curious to read another book by a great physicist, which has recently appeared from the English press,—a translation of Helmholtz's popular essay on "Subjects of Physical Science," edited by Professor Tyndall. In the lectures on the eye—which are admirably translated by Dr. Pye Smith—Helmholtz points out so many imperfections in the construction of the human eye as an optical instrument that he concludes that from it the strongest arguments may be derived for the Darwinian theory, since it is only by such a theory that they can be explained. Finally, I think I should mention to you the "Handbook for the Physiological Laboratory," by Sanderson, Foster, Klein, and Brunton, as one of the chief scientific events of the season. It is full of great faults, which have been severely exposed in a long review which has caused a great deal of discussion here; but its merits overpower its faults, and it is admitted on all hands to be the most original and trustworthy book which has yet appeared on the subject in any language, and one which will be invaluable to medical students. It is, however, destined to no very long popularity; for a similar handbook by Professor Rutherford is about to be published, which will probably be much more homogeneous and compact, and will be not less trustworthy, while it will be less bulky and diffuse. Altogether, there is great animation in medical publishing here.

OUR PODUNK LETTER.

Podunk, June.

DEAR TIM,—You will be glad to hear that I am now Health Officer and President of the Board of Health of this metropolis; and I find that your advice to go in for hygiene as a promising lead was sound, as it generally is. I made my first move in the department of ventilation,—got up a new system by putting the openings at the middle, instead of top or bottom; and my new American Universal Ventilator is a success,—can be applied to anything, from a hat to a hospital, and is now being introduced by order of the Board of Health into every chimney and hack in this town. I get three dollars royalty on each one: how high is that? I am now getting up a hygienic cooking-stove with disinfecting attachment, and I don't think there is less than five thousand dollars in it. But to come to the point: I am going to start a daily hygienic journal, *The Podunk Sanitorial Cosmopolitonian*, to be printed on medicated paper and of suitable size. I want you to write some articles for it, urging, from the legal point of view, the necessity for legislation on the subject, and for a Central Bureau of Hygiene; and I want you to write, or get some one to write, an article on the climate of this part of the country as good for cancer and baldness.

The climate changes pretty often and pretty fast,—is hot, and foggy, and damp, and raw, and couldn't be recommended for consumption no way. But there are no cases of cancer here, for the last one died about two weeks ago; and the druggist told me he had three pounds of cundurango left, and no customers; and did I think it might be good for anything else,—such as granular lids, or biles, for instance?

Well—don't you see?—the climate here must be good for cancers, and you can say as much as you like as to its effect on the baldness. What I propose to do for the science of Hygiene is to make it practical, you know,—bring it before the public in such a way that none will know it but to love it, so to speak. The demand of the age is for statistics, and I am going to have some. Take corns, for instance. The average is 1.3007 to each individual. But what a corn-doctor wants to know, and what the spirit of the age demands, is precise data as to the influence of locality, climate, diet, and ventilation upon their growth and development. And the *Cosmopolitonian* will have those data, for I am going to make them.

I shall advocate congressional legislation, of course; and that's where I want your assistance. What I favor is a corps of United States Sanitary Inspectors,—say one for each State and Territory, and a dozen for Europe and Asia. Have a handsome series of blanks prepared, including all possible questions, and let the inspectors report once a month. I suppose there would have to be some sort of a head-centre for them to report to; though there are some objections to it. Depend upon it, that is the system that is going to be established, and you can't do better than put yourself in training for one of the inspectorships by writing some sanitary articles for me. Of course, we must organize and keep out the quacks, who are intruding everywhere: there's one on the Board of Health here, who got the place on the strength of a sanitary tooth-brush with a hollow handle to be filled with hygienic powder, which passes out be-

tween the bristles, on the principle of Mason's potato-drill. I'd like to put one of my ventilators into the side of his head.

By the way, I could get the office of chemist to the board created, and hold it myself, if you can find me a good, competent man for assistant who will run the department and not blow about it.

To return to the organizing. The National Health Association have got the start of us, but they have taken in a number of people who don't care about office, —in fact, who have got good places now,—and, therefore, will criticise and object to all moves which will be of any "practical use" to the organizers.

If I hadn't thrown away time and opportunities I might now, perhaps, be in Washington in a comfortable office as Chief of the National American Republican Sanitary and Hygienic Enforcement and Vitally Statistical Bureau, and, if I was, I can tell you that the N. A. R. S. H. E. V. S. Bureau would be an institution worth caring for. But the bloom has been brushed from that idea, and we will go in on a bigger platform.

Yours, as usual,
D. D. Douceit.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday Evening, May 22, 1873.

The President, Dr. J. H. Hutchinson, in the chair.

Dr. GEORGE C. HARLAN exhibited a specimen of *caries of the tympanum*, and said the case of the patient from whom this specimen was taken was reported in the *Medical Times* in November last (No. 55). She was a delicate girl, 22 years of age, whose mother had died of phthisis. She had been subject to an occasional discharge from the left ear since early childhood, and death resulted from an abscess of the brain following upon a violent attack of otitis, which involved the tympanum, mastoid cells, and external meatus. The abscess was as large as a hen's egg, and rested on the upper surface of the petrous bone, from which it was separated by the membranes and a thick layer of lymph. There was a small opening through the membranes.

Nearly half of the roof of the tympanum from the entrance of the Eustachian tube backwards is destroyed, and the upper part of the posterior wall is gone, the tympanum and mastoid antrum forming one continuous cavity. Nothing remains of the roof of the mastoid antrum but a thin bony scale with large perforations. The outer part of the posterior wall of the external meatus and the bone around it are honeycombed, and contain sinuses leading to the mastoid cell. Notwithstanding the extensive destruction of the walls of the tympanum, the portio dura escaped; there was no facial paralysis, though the nerve was exposed at several points by openings in the aqueduct of Fallopius. The membrane was destroyed, and there was a large polypus just within the tympanum.

The development of the temporal bone is very deficient for an adult. The mastoid process is little more than rudimentary, and the vertical cells are not formed.

The anterior and inferior wall of the meatus is deficient, I believe principally from defective development, as the disease does not seem to have followed that direction to any great extent.

Dr. William Thomson had examined both eyes of Dr. Harlan's patient and found in each "choked disk." In making post-mortem examination they were unable to get the posterior portion of either eye. But he had removed the optic commissure, with a view to determining whether any change was present posterior to the retina in the optic nerve. In comparing sections of this optic commissure with sections of a healthy one, he had found the nuclei of connective tissue much more numerous on the commissure from the affected eye than on that of the healthy one.

Dr. R. M. Bertolet said the diagnosis of brain-disease in connection with purulent disease of the middle ear is very obscure. The symptom of choked disk in this connection was a new one to him; and he thought that even this could not be relied upon, since it is possible to have meningitis without it. The diagnosis of thrombus of the sinus transversus can only be made with certainty when pyæmic symptoms are present,—irregularly recurring chills, evidences of metastatic foci in the lungs, liver, etc. When these manifestations are absent, and we have only symptoms of brain-irritation, which may be dependent upon a concomitant meningitis or encephalitis, then the diagnosis must at best be doubtful. Gerhardt mentions as a pathognomonic symptom that the jugular vein on the same side with the occluded sinus is scantily filled. Nor is this to be relied upon; since post-mortem examinations have revealed thrombus of the transverse and inferior petrosal sinuses existing on the side on which the jugular vein was still well filled. Nor is the symptom of painful œdema of the mastoid process to be relied upon; since we often have thrombus of the sinuses without this, and we frequently have marked swelling over the mastoid process without inflammation of the brain. It is also sometimes difficult to establish the connection between the middle-ear trouble and the inflammatory condition of thrombosis or of cerebral abscess. Some time ago, however, he met a case with caries of the middle ear involving the auricles principally, and on the same side thrombosis. In this case he thought that inflammation and phlebitis of the lateral sinus must have been established by means of the very small veins which run through corresponding openings in the petrous portion of the temporal bone, since the tegmen tympani remained intact.

Dr. James Tyson asked of those interested in this subject whether central nervous disease producing deafness, as a tumor pressing upon the origin of the auditory nerve, was ever found to have been attended by changes in the normal structure of the organ of hearing.

Dr. C. H. Burnett said that he knew of no observations bearing upon this subject except those recently published by Levi, in Paris, who furnishes illustrations of the membrane of the tympanum in certain cases of cerebro-spinal meningitis, in which the membrane had undergone symmetrical changes in color to about one-quarter their extent, assuming in this area (antero-superior quadrant) a chocolate hue. He had himself examined the membrane of the tympanum in several cases of cerebro-spinal meningitis, but discovered no change.

Dr. James Tyson exhibited *a tumor of the cerebral meninges* removed from William K., colored, age 45, native of North Carolina, admitted to the Philadelphia Hospital May 15, 1873, with syphilitic history. When admitted, he complained of muscular pain, more particularly in the flexor muscles of the left arm, which he attributed to rheumatism. There was impaired motion of the left fore-arm, and he said he had been paralyzed; but he could give no account of himself. When first seen by Dr. T., May 16, 1873, he could not or would not

talk, but, muttering, placed his hand to his head when urged to answer. That morning, however, he walked without assistance to the water-closet and into the yard. He could also move all his limbs, though that of the left fore-arm and hand was deficient in power. He continued thus walking about the ward until the afternoon of the 17th, when, having eaten his dinner, he said he felt badly, and went to bed. The captain of the ward, passing the bed a little later, noticed a twitching in the muscles of his face. Half an hour later he became comatose. In this condition his right pupil was largely dilated, the left decidedly contracted, to a pin's point, and there was apparently no motion or sensation. His breathing was stertorous, his pulse 75, and full, and his temperature 98°. He continued thus until the evening of the 18th, when his pulse ran up to 140 and became exceedingly weak, and he died on the morning of the 19th.

Post-mortem examination revealed three adjacent tumors on the under surface of the dura mater, over the right middle lobe, 1½ inches to the right of the median line. The largest of these was as large as an English walnut; the second, of irregular shape, was composed of two portions—a smaller, three lines in diameter, a larger, six lines. The third was a flattened oval mass, eight lines long and four wide.

The specimen was referred to the Committee on Morbid Growths, who reported as follows:

"Your committee, having examined the tumor presented by Dr. Tyson, find it to be a rare specimen of *primary sarcoma* of the cerebral meninges. The origin of the two growths has evidently been from the arachnoid, although the basal portions are pretty firmly adherent to the dura mater.

"The size of each of the tumors is nearly that of a walnut; the consistence soft.

"The cells are principally of the spindle-shaped variety, with here and there giant cells (myloplaques). The intercellular substance is scantily developed. Numerous blood-vessels exist in all parts of the growth; while there is a remarkable absence of any pigmentary cells."

Dr. TYSON also exhibited a specimen of *gastric ulcer perforating a blood-vessel, from which hemorrhage and death ensued*, removed from J. D., age 31, born in Germany. His father and mother were living five years ago; he has not been a drunkard; he contracted syphilis in 1865, and secondary symptoms appeared later.

In July, 1872, he first noticed a "fulness" in the stomach, with pain in the left side. This continued until a week before Christmas, when he vomited about a pint of dark, black blood, which came up in "lumps." The hemorrhage was preceded by vertigo.

About a week after Christmas he had a similar attack of vomiting. He has been feeling badly ever since he had this first vomiting of blood, but was able to be about until last Thursday (May 8, 1873), when he had another attack of vertigo of about five minutes' duration. After the vertigo passed off he vomited a large quantity of dark, black blood, which amounted, according to his own statement, to nearly a gallon. He was admitted to the hospital May 12, 1873, when he was exceedingly weak and anæmic.

His bowels were always constipated, and he complained of a "burning fulness" about fifteen minutes after eating, and especially after taking solid food.

There was no pain on pressure, except at a small spot to the left of the epigastric region.

On May 14, 1873, he vomited thirty-four ounces of dark, clotted blood, and soon afterwards died.

The post-mortem examination revealed the presence of a gastric ulcer in the larger curvature of the stomach, about three inches from the cardia.

The stomach contained ten ounces of coagulated blood. The head of the pancreas was decidedly hard, containing nodular deposits, the exact nature of which was not determined.

The brain, kidneys, and liver were exceedingly anæmic.

Dr. F. H. GETCHELL exhibited a *calculus three inches long, one and a quarter wide, and three-eighths of an inch in thickness, formed about a hair-pin as a nucleus*, which he had that day removed from the vagina of a girl aged nineteen. Towards one end of the calculus was a concavity, into which was adapted the neck of the uterus.

Dr. H. LENOX HODGE said that he had often found pessaries thus incrusted, and in these instances there was reason to believe that the incrustations were due to deposits from urine.

Dr. GETCHELL said this calculus was removed from a woman who was a chamber-maid, whose occupation required her to be more or less constantly on her feet.

Dr. J. EWING MEARS mentioned a case which had come under his observation, in which a surgeon removed from the vagina a pessary which had been in position over nine years, which had a coating of inorganic matter. The coating was much thinner than that of the specimen under discussion. He could not say whether this was due to any difference in the material of the substance upon which the deposit formed. He had himself removed a glass pessary which had remained in the vagina for fourteen years. This had also but a slight coating.

Dr. TYSON said there must be extraordinary differences in the quality of the secretions of different females, since he had recently removed a pessary which had been in the vagina eight years, which on removal was as free from deposit as it must have been at the moment of introduction.

Dr. JOHN ASHHURST, JR., said that in considering the different rates of deposit noted in connection with these vaginal accumulations (which he suspected were really derived from the urine in most instances), it should be borne in mind that the rate of urinary deposit in the formation of vesical calculi was also very different in different cases. It sometimes happened that the deposition from phosphatic urine was so rapid that in attempting to remove a stone by lithotrity it was found that the accumulation in the intervals between the sittings actually exceeded the amount removed at each operation. So also when foreign bodies were introduced into the bladder by accident or otherwise, the rate at which concretions were deposited was by no means constant, the foreign bodies sometimes soon assuming a large size in consequence of such deposition, while in other instances they remain a long time with little or no incrustation.

Dr. HODGE said that in corroboration of these remarks he might say that he once removed from the bladder of a female the end of a female catheter which had been in the organ twelve years, and it was totally without incrustation, being simply blackened.

Dr. GETCHELL had also removed from a female the end of a catheter which had been in the bladder twelve years. It also was without incrustation and simply blackened.

Dr. C. H. BURNETT asked whether a loss of substance did not sometimes occur in pessaries while in the vagina, since a case had recently come under his observation in which this appeared to have taken place.

Dr. HODGE said that before the introduction of the hard-rubber lever pessaries, nothing that could be used in that shape had been found to resist the corrosive action of the fluids of the vagina except gold, and that only for a short time. The corrosive power, however, is very different in different women.

Dr. HODGE also stated that previous to the hard-rubber his father had used silver, plated as thickly as he

could get it with gold, and that it was in compliance with an urgent request of his father to devise something that would not be thus acted upon, that he himself suggested the hard-rubber. The first pessaries used were the hard-rubber rings made for the harness of horses.

The specimen was referred to a special committee, composed of Drs. H. B. HARE and JAMES TYSON, for examination and report.

The committee reported as follows:

"The committee appointed to examine the calculus removed from the vagina by Dr. F. H. Getchell report that the exterior is composed solely of phosphate of lime. The committee regret that they were not permitted to make a section of the stone, as the examination confined to its superficial portion adds nothing to the value of the specimen and makes it a mere curiosity."

Dr. GETCHELL also exhibited a small *breast-pin* which he had removed from the vagina of a young girl.

Dr. GETCHELL also presented a specimen of *albuminous urine* from an adult male, in which no one had heretofore found casts, although the quantity of albumen was considerable.

This specimen was also referred to Drs. HARE and TYSON, who reported as follows:

"The committee to which was referred the specimen of albuminous urine presented by Dr. F. H. Getchell report that it contains a bulk of albumen equal to about $\frac{1}{10}$ of that of the fluid tested, and that in it were found a few granular casts. It believes the case to be one of contracted kidney."

Dr. DE FORREST WILLARD presented, for Professor D. H. AGNEW, a *contracted liver* from A. B., 60 years of age; a frequenter of club-houses during life; constantly drinking to excess, but never to intoxication. His health had been slowly failing for the last five years, but he was not confined to the house until about six months before death. Ascites and œdema of lower limbs became very troublesome during the last four months of life, and strength gradually failed. He was tapped in March, and several gallons of liquid drawn off. The abdominal distention soon returned, however, and he died in the middle of May, from exhaustion and peritonitis.

Autopsy.—Peritoneal cavity filled with several gallons of bloody serum. At brim of pelvis, at various points in the iliac fossæ, and in the lumbar regions were blood-clots, some of them an inch and more in diameter, others smaller. They were mostly within the peritoneal cavity, but a few were found in the subperitoneal connective tissue. Those lying upon the peritoneum were confined and enclosed by a layer of lymph. Throughout the entire surface of the membrane, both parietal and visceral layer, were bands of lymph which bound all the intestines and every abdominal organ firmly into one mass. Careful and accurate search was made to ascertain whether an abnormal blood-vessel could have been situated directly in the median line; but no trace of one could be discovered, and it seemed evident that the hemorrhage had occurred from capillary oozing, possibly due to the removal of pressure from the vessels by the previous tapping, although a bandage had been applied during the operation. The liver was so exceedingly contracted that it had lost all resemblance to such an organ, and was merely a hard, round ball about the size of one's two fists. The left lobe had been so entirely removed that scarcely a trace of it remained. The connective tissue preponderated greatly over the hepatic; in fact, there was but little of the latter substance remaining. A thick layer of lymph covered in the whole organ and its gall-bladder, giving it an appearance which rendered recognition almost impossible. Upon section it was dense, firm, and tough; the spleen was greatly enlarged, being seven or eight inches long, five wide, and two and a half thick. It was also so condensed and firm that upon section it appeared of the density of the liver in health, and presented all the appearances of that organ to the unaided eye. Under the microscope the structure was found to consist almost entirely of connective tissue, but few splenic elements being present.

The kidneys were deeply congested, slightly enlarged, fatty, and in the pelvis of the left was about one-half drachm of pus.

The stomach bore, upon superficial examination, no decided evidences of disease.

The visceral layer of the pleura of the left lung was bound to the parietal layer by strong, firm adhesion.

Right pleural cavity filled with liquid, and both lower lobes of lung collapsed.

The heart was small, but valves healthy. Brain not examined.

Dr. TYSON, in allusion to the hemorrhage spoken of as having occurred at the tapping, referred to a case related to him by Dr. William Pepper, in which abdominal tapping was practised for ascites attending hepatic disease, and, after a considerable quantity of fluid had been drawn off, bloody serum began to flow, followed soon by a flow of pure blood. After a short time the tapping was discontinued, the opening closed, and no bad symptoms followed. This was explained by the removal of previous pressure from the capillaries, in consequence of which the leakage took place.

Dr. JOHN ASHHURST, JR., referred to the fact that similar accidents had occurred in tapping large serous cysts, from which, after the evacuation of the cystic fluid, there was sometimes a flow of bloody serum, and ultimately of pure blood, and added that in such cases, unless care was taken, serious consequences might actually ensue from the hemorrhage. The explanation of the occurrence was, of course, that capillary bleeding followed the sudden diminution of pressure, and a like accident might, Dr. Ashhurst thought, well occur after paracentesis of the abdomen, particularly if the precaution of employing a bandage during the operation had not been observed.

Dr. H. LENOX HODGE exhibited the *head and neck of femur removed by excision in a case of coxalgia.* The operation was performed at the Children's Hospital on Wednesday, May 14, and thus far the patient has done exceedingly well. He is a boy, eleven years of age. His mother died of consumption. His father is alive, and in good health. He was admitted to the hospital about one year ago, and during a portion of the summer was sent to the Hospital for Convalescents, at Atlantic City. A few months ago an abscess formed, which pointed, on the front of the thigh, and still remains open. The head of the femur was out of the acetabulum and drawn backwards on the ilium. Ulceration had nearly destroyed the head of the bone, and the under surface of its neck was bare, the periosteum having been separated. The anterior and inferior portions of the rim of the acetabulum were extensively diseased, having sharp edges and being uncovered by the periosteum.

Dr. WILLIAM DARRACH exhibited the *arteries from the base of the brain, from a case of softening with hemiplegia.* The patient's age was 62; he was temperate, a bachelor, a gentleman of leisure and means. On October 14, 1872, he was taken sick at his hotel about 5 o'clock P.M. He was carried up-stairs to his room unconscious. At 8 P.M. a physician saw him; he was still unconscious; cups were applied, and he was bled. At 8 A.M. he was conscious, and hemiplegic on the right side. The paralysis continued until about the latter part of November; he then walked about, came down-stairs, and even engaged in a game of croquet. In the middle of December he grew worse, and again lost power of limbs; very restless and excited at night; he

imagined himself in the street; his dreams were realities to him; but during the day his mind seemed clear about his affairs; he realized his critical condition, and gave his brother power to act for him; he told his sister what he desired to do with his property, and seemed anxious about his condition: he said he would not get well. *Aphasia* was a prominent symptom; restlessness at night; occasionally great irritability; nausea in the morning. Pulse about 80, sometimes intermittent. At times he seemed to suffer pain in the right shoulder; he never complained of headache, but sometimes of pain in the bowels. There was occasionally spasmodic action of the muscles of the left arm and leg during the last two days of his sickness.

The *breathing* was *peculiar*,—*heaving* like a woman's. The day before his death he seemed very much depressed, and spoke of his disease as real estate, and of himself as a third person; but still, the day before, he told about his own case, and asked the difference between palsy and paralysis.

Post-mortem.—Brain.—Opacity, and deposits in pia mater of both hemispheres. The left lateral ventricle contained a yellowish-white mass in the corpora striata. Considerable effusion, with great softening.

The arteries showed marked abnormal condition along their whole course. The vessels seemed much thinner in some parts than in others.

The *basilar artery* was flattened, and of a yellowish color, the walls very much thickened at some parts and thin at others.

The communicating arteries appeared to be merely fibrous.

The carotids were also thickened, especially the right.

From these appearances the case was looked upon as one of softening from anæmia of the brain, caused by degeneration of the coats of the blood-vessels.

The coats of the vessels were found to contain a great deal of fat.

The softening in the left ventricle was no doubt the cause of the attack in the month of October.

The heart was hypertrophied, but the valves were normal.

The liver was normal.

The kidneys were granular.

Dr. MEARS presented a *multilocular ovarian cyst*, removed by Dr. Washington L. Atlee from a patient æt. 42 years. The tumor involved the right ovary, and consisted of one large cyst, with several small cysts developed in the posterior wall. An interesting feature connected with the specimen was the quantity of fluid contained in the large cyst, measuring sixty-four pints. The fluid was of a deep chocolate color, highly albuminous, very viscid; specific gravity 1030. Under the microscope it showed a large number of blood-corpuscles, granular débris, and compound granule-cells.

Dr. HODGE asked whether anything had occurred in the prior history of the case to give rise to the presence of such bloody fluid, such as a fall or similar cause which could rupture the blood-vessels of a cyst.

Dr. MEARS replied that nothing of this kind had occurred, so far as he could ascertain.

REVIEWS AND BOOK NOTICES.

OPHTHALMIC CONTRIBUTIONS.—I. DERMOID TUMOR OF THE CORNEA. II. AN ADDITIONAL METHOD FOR THE DETERMINATION OF ASTIGMATISM. III. CYST OF THE IRIS, REMOVED BY OPERATION. By GEORGE STRAWBRIDGE, M.D., Lecturer on Diseases of the Eyes at the University of Pennsylvania, etc., etc.

The first paper gives an account of a dermoid cyst removed from the cornea by an operation, with a good result, and adds one more to the cases already on record. The second describes a clinical method of examination of astigmatism which combines those advised by Donders, Snellen, and Dr. Green, in a simple and useful form. The third recites the clinical results of a successful operation for the removal of a cyst of the iris, and gives a short résumé of the literature of the subject. These papers are tersely written, and form a valuable contribution to ophthalmic surgery.

SELECTIONS.

SIR JAMES PAGET ON THE TREATMENT OF BED-SORES.

FIRST of all, look to the bed. Good bed-making is an indispensable thing in the prevention of bed-sores. Several beds have been made especially for this purpose, of which the best is Dr. Arnott's. It consists of a chest full of water; on the top of this is a water-proof sheet, and over this an ordinary sheet on which the patient is laid. Here the patient is absolutely floating on water. The waterproof sheet is not drawn tight, but adapts itself to every part of the patient. A patient might lie on this for years and never have a bed-sore. Inferior to this, but very good, is Hooper's bed. Here the waterproof on the bed is tight. They will avert bed-sores for a long time, but I should not like to say that a patient would never get a bed-sore on them. But you cannot have these everywhere; you can't take them about to every one who may need them, and there are many cases in which they cannot be used at all, as in cases of fractured neck of femur, acute inflammation of knee-joint, and many others.

In ordinary beds the best thing is an ordinary firm mattress of horse-hair; and it must rest on boards. Cords are the worst possible things; as after twenty-four hours or so they give under the weight of the patient, and the most prominent parts are pressed upon. Iron gives after two or three weeks. Not so boards. It must be quite level. Under the horse-hair it is better if possible to have a spring or straw mattress. Feather-beds and the like are, of course, to be utterly condemned. If possible, have two beds, so that you may lift the patient into the other when it wants making. You thus avoid making beds under him.

The next thing is to harden the skin. The best application for this is a solution of one part of nitrous ether in three of water. If the back is frequently washed with this, bed-sores may be completely averted. There is in the hospital a man paralyzed in his lower limbs; he has been in this state for ten months. By the good nursing of the sister of his ward, bed-sores have been kept away. This application of nitrous ether has been used. Solution of one grain of perchloride of mercury, with two drachms of nitrous ether, and six ounces of water, is another good thing. Whisky is used in Scotland, as is brandy sometimes in England; but these are not so good. In Germany they use a solution of tannic acid. When the parts look as if they were going to slough, these spirit applications may be too strong, and then a solution of gutta percha in chloroform is very useful. Next we have to prevent pressure on those parts where bed-sores are likely to occur. These are the middle line of the sacrum, after that, in thin persons, the posterior-superior spines of the ilium, and the sacro-iliac articulations, then the trochanters of the femur. The chief thing is a frequent change of posture. If a patient can lie in four different positions during the day, bed-sores may be prevented. He may lie on his back, each side, and on his face. Of course, you couldn't make a stout person lie on his face: he

would simply suffocate. This change prevents the gravitation of the blood. This may easily be seen by looking at the back of a subject in the post-mortem room. The back is quite red from this cause.

When patients lie on their backs, they may be saved for a time by dividing a mattress and leaving a space of six inches between the halves. You may thus save the sacrum, which will have no pressure on it. The case before referred to was treated so, but sores came on the ilium and trochanters.

Large cushions made of amadou in the shape of a horse-shoe are very good. Pads of cotton wool may also be used with advantage. In speaking of the mode of curing bed-sores already formed, let me remind you to continue your preventive treatment just as if there were none, lest they come in other parts.

During the sloughing there is nothing better than a poultice of equal parts of linseed and bread and enough charcoal to have a deodorizing effect. Carrot and turnip poultices are also deodorizing, but they are not so good as the first. The poultice is best spread on ordinary tow. When spread on linen, etc., folds are liable to form, and if the patient is on these they promote the bed-sore. When slough begins to separate, the resin or other stimulating ointment should be spread on the surface of the poultice.

When the slough has separated, the sore should be dressed with resin ointment or Peruvian balsam, or equal parts of these, in the following manner: little bits of cotton wool should be slightly spread with the ointment, and put into the sore until it is quite full. They thus make an equable soft surface for the sore. These are the chief local means for curing bed-sores. As regards internal treatment, don't stimulate. Let the diet be gentle but good; plenty of milk and bread, little or no meat, and a small quantity of wine. — *The Student's Journal.*

GLEANINGS FROM OUR EXCHANGES.

On the Relations of Faradaic Electricity to Pain.—Among the varied and important therapeutical uses of electricity certainly one of the most prominent is the relief of pain; and, as pain is so common and often so troublesome a thing to deal with, it is natural that practitioners should eagerly seize hold of what promises to be a new mode of relieving it, without inquiring very minutely as to the precise conditions upon which success depends. One of the most fruitful causes of failure and disappointment in this connection is the neglect to discriminate between cases requiring the use of the continuous current and those in which faradization is the suitable remedy. An excellent article in *The Practitioner* for June defines as follows the boundaries of usefulness of the latter therapeutic agent:

1. Faradization is useful as a *mental counter-irritant* in "hysterical" conditions when the mere concentration of attention on a particular part of the body will convert some slightly unusual sensations into the mental perception of actual pain.

2. Where the so-called "hysteric hyperæsthesia" exists, large mucous or cutaneous areas being unnaturally sensitive to superficial pressure.

In both these cases the skin should be dried, and the current applied unsparingly with dry conductors, one pole being placed over an indifferent spot, the other moved slowly about over the area to be operated upon.

3. Where the pains are situated in the muscular or tendinous structures and are closely connected with the degree in which the muscle has been over-exerted in proportion to its nutrition, faradization will usually remove them. Its action here must be strictly limited to the skin, by having the latter very dry, and using only dry conductors, as, if the current penetrate to the muscle and set up contractions, we shall only add to the agony.

4. In chronic fibrous rheumatism seated in the ligaments of joints, in fasciæ, and in periosteum, faradization may do good; but no positive results have yet been obtained.

5. In true neuralgia obviously following the track of a recognizable nerve, faradization is either useless when it does not penetrate beneath the skin, or hurtful when it brings on muscular contractions, as there are no such terrible exciters and aggravators of neuralgic pains as repeated intermittent impulses.

In regard to the regularity of the interruptions in the current, it may be said that in proportion as the malady is beyond the patient's own control it is desirable to employ a regular series of intermissions, and *vice versa*. That is, with a patient having none of the common convulsive phenomena of hysteria, but with some definite paralysis or anæsthesia, and whose skin presents a patch of acute tenderness, use a tolerably intense current with rapid and even intermissions. The patient should be placed under chloroform, and the dried skin should be well fustigated with the wire-brush of a Stöhrer's or Weiss's faradizer, the secondary current being employed of high strength. If the affection be one in which the morbidness of the will has much to do with the painful sensations themselves, no chloroform should be allowed. The electrodes should be brass disks, and a common magneto-electric apparatus may be employed, the current being arranged at a high degree of intensity, and the driving-wheel urged at a varying and irregular pace.

What are the Signs of Congenital Syphilis?—In a paper read before the Harveian Society of London (*Lancet*, May 24), Dr. Thomas Ballard discussed the subject of congenital syphilis, and endeavored to show that those conditions before birth, at birth, or some time after birth, which have been supposed to depend upon a syphilitic taint, can be explained by simpler and more obvious means. Acknowledging that a woman infected with syphilis is apt to abort and bring forth dead children, he denies that this is from the direct effect of the virus upon the fœtal organism, and asserts that "the death of the fœtus in utero is the consequence of some defect in the maternal system, resulting from its contamination by the syphilitic virus, and that it is not necessary to infer, neither is there evidence to prove, that the organism of the child is intrinsically affected by it." He believes pemphigus and other forms of erysipelatous disease occurring within a fortnight after birth to be pyæmic affections resulting from unhealthy suppuration of the umbilicus; and the coryza, thrush, and ophthalmia of new-born children to be due to external irritants, as cold air, sore nipples, and exposure to light. He thinks the cutaneous inflammations about the buttocks and thighs are usually caused by the contact of moist and frequently unclean flannel, and relates cases where such troubles disappeared in a few weeks after the mere removal of the napkins, though they had resisted anti-syphilitic treatment for many months. He concludes that "the records of cases of living children having been born with manifestations of syphilitic disease are so few as to allow of the supposition that they are not trustworthy," and that "the symptoms which are developed some weeks after birth, and are relied upon as pathognomonic of syphilitic contamination of the system of the child, are mere accidents arising from certain unfavorable conditions to which the child is exposed, and that they are all preventable or easily cured when the cause producing them is recognized."

Snake-Poisoning in India.—The intravenous injection of ammonia in sufferers from snake-bite having unfortunately failed in India (whatever may have been its success in the hands of its originator, Dr. Halford, in Australia), renewed attempts have been made to counteract the poison by Prof. Fayrer, of Calcutta, than whom there is no higher authority on the subject. By a long series of experiments he has ascertained that while none of the so-called "antidotes" are of any avail, life may be prolonged and ultimately saved by artificial respiration. Dr. Fayrer found a strong analogy between the action of cobra poison and that of curara, the cure for the latter being the application of warmth to the body and artificial respiration. In this way, after apparent death for many hours, the poison is eliminated by the excreting organs, and the victim recovers. Curara paralyzes the peripheral expansion of the motor nerves, inducing asphyxia in the muscles of respiration. Cobra poison acts similarly, though Dr. Fayrer fears it may also do irreparable injury to the nerve-centres. Dr. Fayrer believes that, whatever the result when an overwhelming quantity of poison has been received, those cases in which a smaller quantity has been injected, and which, if left to themselves, would die, may by artificial respiration be saved. Acting on his suggestion, Mr. Richards, civil medical officer of Balasore, in the case of a dog, sustained the heart's action for ten hours, though convulsions had set in when he commenced artificial respiration. In another case he kept up the heart's action for twenty-four hours and thirty-five minutes. "The eyes had lost the glazed appearance, lachrymation was restored, and there was a winking of the lids on dropping water into the eye, attempts at deglutition when water was put into the mouth, and the heart beating vigorously."—*London Lancet.*

Case of Complete Aphasia followed by Cure.—This interesting case is recorded by Dr. Grasset in the February number of the *Montpellier Médical.* The author has thus briefly summed it up: "A man with inveterate alcoholic habits, and presenting unmistakable signs of alcoholism, was suddenly affected, in the midst of perfect health, with vague malaise and gastric troubles, which he ascribed to indigestion; then suddenly, during a quarrel, he lost the power of speaking, was admitted the following day into the hospital, and then showed utter inability to express his thoughts in words or writing or by gestures. The intellectual faculties seemed entirely preserved, and all the movements were free, though there was slight hemiplegia of the left side. The phenomena gradually abated under the influence of revulsant treatment, and remarkable progress towards cure manifested itself one night after three attacks of epistaxis. From that moment recovery took place rapidly. Only, during convalescence, a sort of hemiplegia of the various senses was observed; but these phenomena gave way in turn, and the patient was dismissed, entirely cured, on the twenty-seventh day after the onset of the disease."—*London Lancet.*

Rheumatism of the Gravid Uterus.—Dr. E. H. Trenholme reports a case (*Canada Medical Record*, June) of rheumatism of the uterus occurring in a multipara during the sixth month of gestation. A sudden and severe attack of sub-acute rheumatism of the right shoulder was followed by agonizing epigastric and diaphragmatic pains, which were succeeded by tenderness and swelling of both knees. At this stage the uterus became the seat of the most intense agony, the other symptoms abating. The uterine pains continued for five days, resisting treatment by morphia, aconite, and powerful counter-irritation, but yielding finally to a mixture of iodide of potassium, bicarbonate of potassium, and wine of colchicum.

MISCELLANY.

Medical Prizes—Boylston Prize.—At the annual meeting of the Committee, held June 2, 1873, it was voted that prizes of one hundred and fifty dollars each be awarded to David F. Lincoln, M.D., of Boston, for a dissertation on "Electro-Therapeutics," and to William C. Dabney, M.D., of Charlottesville, Va., for a dissertation on "The Value of Chemistry to the Medical Practitioner."

The following are the questions proposed for 1874:

1. The Best Methods of Preventing the Development and Spread of Smallpox.

The author of a dissertation on this subject, considered worthy of a prize, will be entitled to a premium of two hundred dollars.

2. The Development and Extension of Malignant Disease.

The author of a dissertation on this subject, considered worthy of a prize, will be entitled to a premium of one hundred and fifty dollars.

The following are the subjects proposed for 1875:

1. Original Researches in Medical Science.
2. So-called "Concussion of the Spine."

The author of a dissertation considered worthy of a prize, on either of the subjects proposed for 1875, will be entitled to a premium of one hundred and fifty dollars.

Dissertations on these subjects must be transmitted, as above, on or before the first Wednesday in April 1874 and 1875 respectively.

Sneezing.—The custom of invoking a blessing upon persons who sneeze is, says Dr. Seguin, in a recent article on sneezing (*Archives of Scientific and Practical Medicine*), a most interesting one. Several old medical authors state that the custom dates back from the time of a severe epidemic (in which sneezing was a bad sign) during the pontificate of Gregory the Great. Brand, however, and the author of an article in "Rees's Cyclopædia," state that the phrase "God bless you," as addressed to persons having sneezed, is much more ancient, being old in the days of Aristotle. The Greeks appear to have traced it back to the mythical days of Prometheus, who is reported to have blessed his man of clay when he sneezed. In Brand the rabbinical account is given, that the phrase originated in the alleged fact that it was only through Jacob's struggle with the angel that sneezing ceased to be an act fatal to man. In many countries, sneezing has been the subject of congratulations and of hopeful augury. In Mesopotamia and some African towns, the populace are reported to have shouted when their monarchs sneezed. Sometimes, moreover, it is very important not to sneeze; and Dr. Seguin has discovered, what has been discovered before but is insufficiently known, that sneezing may be prevented by forcibly rubbing the skin below and on either side of the nose. And on this observation of himself, and of Marshall Hall, Diday, and the world generally before them, he bases an ex-

ceedingly interesting study of the physiology of sneezing in health and disease.—*London Medical Record.*

To Extract Grease-Spots from Books or Paper.—Gently warm the greased or spotted part of the book or paper, and then press upon it pieces of blotting-paper, one after another, so as to absorb as much of the grease as possible. Have ready some fine, clear essential oil of turpentine, heated almost to a boiling state; warm the greased leaf a little, and then with a soft, clean brush wet with the heated turpentine both sides of the spotted part. By repeating this application the grease will be extracted. Lastly, with another brush dipped in rectified spirits of wine, go over the place, and the grease will no longer appear, neither will the paper be discolored.—*The American Chemist.*

The Disorders of Diplomatists.—Talleyrand, it is said, spent a sleepless night in trying to discover what another diplomatist meant by having the scarlet fever. Pope Innocent XI. was always seized with a violent fit of coughing whenever Castlemaine, the English ambassador, pressed him for a cardinal's hat for Father Petre, the confessor of James II. Just before the Crimean war, the French ambassador at St. Petersburg, while awaiting important dispatches, very conveniently caught a rheum and housed himself. For two weeks, said a witty Frenchman, a pocket-handkerchief was the *drapeau de la France.*

Fecundity of the Mule.—A case of exceptional fertility in this hybrid is mentioned in the *Gazette Hebdomadaire de Médecine* for March, as having occurred recently at Orleansville, in the department of Algiers. A mule has given birth to a young mule perfectly formed. The medical men of the place have ascertained the fact, of which, indeed, many other examples have been recorded. What would be especially interesting would be to know whether this young mule will be fertile.

Medical Department, University of New York.—Professor Charles L. Ives, of Yale College, has been elected to fill the chair of Diseases of the Mind and Nervous System, in the Medical Department of the University of the City of New York.

To Remove Nitric Acid Stains from the Hands.—Wet the skin with sulphate of ammonia to which has been added some potash lye. This changes the dead skin into a soapy mass, which can easily be removed with sand or fine pumice-stone.—*Druggists' Circular.*

A Doctor recently went out for a day's shooting, and, on coming home, complained that he hadn't killed anything. "That's because you have not been at home attending to your legitimate business," replied his wife.

Puerperal Fever has been so prevalent in New York of late as to compel certain practitioners to send their patients out of town to be confined.

Weekly Return of Deaths and Interments in Philadelphia for the Week ending Saturday, June 28, 1873.

Diseases.	Adults.	Minors.	Diseases.	Adults.	Minors.
Abscess	2	1	Fever, Remittent	...	1
Anæmia	1	...	" Scarlet	...	13
Aneurism	1	...	" Typhoid	4	2
Apoplexy	1	...	" Typhus	1	...
Asphyxia	...	3	Fracture of the Skull	1	...
Cancer	2	...	" " Thigh	1	...
" of Liver	1	...	Gall-Stone	1	...
Casualties	5	1	Gangrene	1	...
Cerebro-Spinal Meningitis	2	6	Hemorrhage	...	1
Cholera Infantum	...	50	" from Uterus	1	...
" Sporadic	1	...	Hooping-Cough	...	2
Cirrhosis of Liver	1	...	Inanition	1	6
Congestion of Brain	9	10	Inflammation of Brain	1	11
" Liver	...	1	" Bronchi	1	1
" Lungs	2	3	" Heart	...	1
Constipation of Bowels	1	...	" Liver	3	...
Consumption of Bowels	1	...	" Lungs	3	4
" Lungs	33	11	" Ovaries	1	...
Convulsions	1	10	" Peritoneum	5	1
" Puerperal	...	1	" Stomach & Bowels	2	3
Croup	...	3	Intussusception	2	...
Cyanosis	...	2	Jaundice	...	4
Debility	8	14	Marasmus	...	18
Diarrhœa	1	3	Measles	...	1
Disease of Brain	1	...	Obstruction of Bowels	1	...
" Heart	15	2	Old Age	6	...
" Liver	1	...	Paralysis	6	...
" Stomach & Bowels	1	...	Rheumatism of Heart	1	...
Dropsy	5	1	Scrofula	...	1
" of Brain	...	3	Septicæmia	1	...
Drowned	8	2	Softening of Brain	1	...
Dysentery	2	...	Still-Born	...	23
Effusion on Brain	...	3	Suffocation	...	1
Erysipelas	1	2	Suicide	1	...
Fever, Catarrhal	...	1	Syphilis	...	2
" Congestive	1	...	Teething	...	2
" Continued	1	...	Tumors	1	...
" Puerperal	2	...			
			Totals	158	231

Meteorological Observations taken at the Signal Office, Philadelphia, during the Week ending Saturday, June 28, 1873.

Month and Day.	*Barometer. Daily Mean*	*Thermom. Daily Mean*	*State of Weather.*	*Rain In.*
June.				
Sunday 22d	30.05	73	Clear, Fair.	.....
Monday 23d	30.16	64	Cloudy, Lt. Rain.	.02
Tuesday 24th	30.14	62	Rain.	.53
Wednesday 25th	30.37	63	Fair, Clear.	.....
Thursday 26th	30.34	67	Fair, Clear.	.....
Friday 27th	30.05	71	Fair, Clear.	.....
Saturday 28th	29.81	76	Fair, Cloudy.	.01
Means	30.13	68		.56

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JUNE 24, 1873, TO JUNE 30, 1873, INCLUSIVE.

Hartsuff, Albert, Assistant-Surgeon.—Assigned to duty at Sidney Barracks, Nebraska. S. O. 107, Department of the Platte, June 21, 1873.

Miller, George McC., Assistant-Surgeon.—When relieved by Assistant-Surgeon Delany, to comply with S. O. 113, c. s., A. G. O. S. O. 117, Department of the South, June 25, 1873.

Azpell, Thomas F., Assistant-Surgeon.—Granted leave of absence for six months on Surgeon's certificate of disability, with permission to go beyond sea. S. O. 124, A. G. O., June 20, 1873.

Delany, Alfred, Assistant-Surgeon.—Assigned to duty at St. Augustine, Florida. S. O. 117, c. s., Department of the South.

SATURDAY, JULY 12, 1873.

ORIGINAL LECTURES.

A LECTURE

ON EPIDEMIC OR MALIGNANT CHOLERA.

BY ALFRED STILLÉ, M.D.,

Professor of the Theory and Practice of Medicine in the University of Pennsylvania.

UNTIL 1830, the inhabitants of Europe and of America were in the habit of regarding the stories of terrible epidemics which devastated Europe in the Middle Ages as belonging to the history of a time which had only a remote, and merely intellectual, interest for the present generation. But a pestilence as terrible as any which the annals of our race record was soon to sweep like a deluge of desolation across the world. On the 9th of August, 1817, it began its death-march at Jessora, a city of Hindostan, whence it advanced to Calcutta, Madras, and Bombay. In the following year it reached the Eastern Archipelago, and in the island of Java, alone, decimated the entire population. Thence it spread into China, and in the course of 1820 entered the northern capital, Pekin. About the same time it began its western progress, ravaged Persia and Arabia, and in 1822 extended as far west as Tripoli, on the shores of the Mediterranean Sea. In the following year the disease showed itself on the northern shore of the Caspian Sea, where it subsided, and appeared for a time to have suspended its progress, for until 1829 we hear no further of its ravages. The pestilence seemed rather to have retired to its original lair upon the banks of the Ganges. But in 1829 it again broke forth upon its old track, eastward and westward, and in the following year we find it raging again around the shores of the Caspian. But this time it did not pause there. It invaded Russia, destroyed more than four thousand persons in Moscow in the space of two months, advanced to St. Petersburg, Warsaw, and the Baltic ports, and appeared in Berlin, Vienna, and Hamburg at the close of 1831. Early in the following year it invaded Great Britain at its northern part, and, while spreading through this and the neighboring island, broke out in Paris on the 26th of March, and spreading throughout France destroyed 120,000 persons in the course of the year. The steady progress of the pestilence westward rendered it probable that it would soon pass the ocean and visit our own shores. Anxiety and dread filled the hearts of the population, and in all directions the municipal authorities prepared to remove the causes which were supposed to favor the development of the disease. It soon became evident that these apprehensions were far from premature. The first case of cholera on the American continent occurred at Quebec, on the 8th of June, 1832, and the disease had reached New York by the 24th of the same month. In the course of a year it destroyed 3500 inhabitants of that city. It was introduced into Quebec by five vessels from Europe, which had together lost 179 passengers by cholera during the voyage.

"All these ships and their passengers were quarantined at Grosse Isle, a few miles below Quebec. On June 7 the St. Lawrence steamer Voyageur conveyed a load of these emigrants and their baggage, some to Quebec, and the majority to Montreal on the 10th.

"The first cases of cholera in America occurred in emigrant boarding-houses in Quebec on the 8th, and the same pest steamboat, the Voyageur, landed persons dead and dying of cholera at Montreal, a distance of two hundred miles, in less than thirty hours; and over this long distance, thickly inhabited on both shores of the St. Lawrence, cholera made a single leap, without infecting a single village or a single house between the two cities, with the following exceptions: A man picked up a mattress thrown from the Voyageur, and he and his wife died of cholera; another man fishing on the St. Lawrence was requested to bury a dead man from the Voyageur, and he, his wife and nephew died. The captain of a passing boat requested an Indian to bury a man from on board; this and five other Indians were attacked and died.

"The town of Three Rivers, half-way between Quebec and Montreal, forbid steamers to land, and escaped for a long time.

"From Montreal the great influx of emigrants was forwarded away, by the Emigrant Society, as fast as they arrived, and by them the pestilence was sown at each stopping-place. Kingston, Toronto, and Niagara soon became affected. In the end over 4000 persons died of cholera in Montreal, and more than an equal number in Quebec."

From the points mentioned the epidemic extended first to Philadelphia, Baltimore, Washington, and the Southern cities generally. In 1833 it broke out in the West Indies, and thence invaded the towns upon the borders of the Gulf of Mexico. In the following year it prevailed in the provinces on our northern borders and in the State of New York, and spread over the whole country during 1835 and 1836. From this period it rapidly subsided, and, although for a year or two cases occurred here and there, the disease had no longer an epidemic character, nor was it of a malignant type. Gradually it disappeared, and the impression became general that we had done with the formidable invader. For nearly ten years this consolatory reflection was entertained; but towards the close of that period the certain though distant signs were visible of its return to our shores.

In 1845 it was known to be advancing on its former path, which it steadily pursued, and entered England in October, 1848, at Sunderland, the very town at which it first appeared in 1831.

"During the second epidemic in Europe, in 1848, two vessels sailed from Havre, where cholera prevailed; one the New York, for New York, and the other the Swanton, for New Orleans. Both contained large numbers of German emigrants. On one the cholera appeared when sixteen days out, with

fourteen deaths; on the other in twenty-six days, with thirteen deaths. The New York arrived at Staten Island, December 2, 1848, and a severe epidemic broke out, but was confined to the Quarantine grounds. The Swanton arrived at New Orleans, December 11; no quarantine was instituted, and in two days patients were taken into the Charity Hospital. This was the beginning of a severe epidemic, which increased in power all winter, till in June, 1849, 2500 died of it in New Orleans. December 20, 1848, it reached Memphis, by steamboat from New Orleans, where for twenty-five days it was confined to the landing-place, but then spread. In the spring it was carried to St. Louis and Cincinnati and the whole Mississippi Valley. In October it reached Sacramento, by means of overland emigrants, and almost at the same time by the United States steamer Northerner, from Panama. The Chinese of California suffered most severely."

In the following April (1849) it reappeared in the public stores at the Quarantine station, Staten Island, and in the succeeding month in the city of New York. From New Orleans in the South, and New York in the North, the cholera spread over the continent, and was even more destructive than during its first invasion. In New York City alone the deaths exceeded 5000. Another pause ensued, which was not broken until the spring of 1854. As before, the starting-point of the epidemic was in Asia. In Teheran, a city of Persia, 11,000 persons perished. It ravaged the South of Europe, destroying an incredible number of victims. At Messina alone upwards of 12,000 are said to have fallen. In France nearly 114,000 were cut off during the year, and in England about 16,000.

Cholera patients arrived at New York in the month of May, 1854, from Europe, and the epidemic straightway commenced. It prevailed during about three months, and destroyed nearly 2000 persons. In Philadelphia during the same period the mortality exceeded 500. I need not trace the further progress of the epidemic, which in this country was less fatal than that of 1849: suffice it to say that it extended to many towns in New England and westward, along the great channels of immigration, through the United States and Canada. Thirteen hundred persons perished at Montreal, and in the small town of Detroit the deaths amounted to 1000.

Once more (December, 1864) the pestilence went abroad. The immediate occasion of its dissemination appears to have been a great Mohammedan festival which was held at Mecca in the spring of that year. Thither several hundred thousand pilgrims flocked from every part of Turkey and Southern Asia, and large numbers among them, even before reaching their destination, died of cholera. There is no doubt that the disease was carried along with the vast crowd which issued from the region where it is endemic,—the great peninsula of Hindostan,—and by them was disseminated in Arabia and Egypt, whence it advanced along the great highways of travel and commerce into Europe. On the 11th of May the first case occurred in Alexandria, and thence it was carried to Ancona, on the eastern shore of Italy. From Alexandria also it was transported to Constantinople, where it began to prevail July 13. By the end of August it had spread to Malta, Tripoli, Barcelona, and Gibraltar. On the 11th of September it broke out at Marseilles, whence it advanced to Paris on the 25th of the same month; while from Gibraltar it was carried to Southampton, where the first cases of the disease occurred September 27. Seventeen days later it began to appear in London. Finally, on November 2 the steamship Atalanta arrived at Quarantine in the Bay of New York, with fifteen passengers sick with cholera. This vessel was crowded with emigrants from Switzerland and Germany, who had reached Havre by the way of Paris, where cholera then prevailed. The disease did not spread at the Quarantine station nor in the city of New York.

In 1867 the cholera again prevailed in this country. Starting from two points, New York and New Orleans, where it had been introduced from Europe, it followed the lines of travel, and could in many instances be distinctly traced to the movements of persons affected with the disease.

This imperfect sketch will give some idea of the progress of epidemic cholera, and of the devastation committed by it, which falls but little short of that produced by the "*plague*," the "*black death*," and other mortal epidemics. Indeed, its ravages far exceed theirs, if the number of places where the cholera prevailed, and the results of its havoc in all countries, be considered. All other epidemics, except influenza, have been comparatively partial and local in their action: this alone has the world for its arena, and takes its victims throughout the whole human family. So mighty a foe it is that you may be obliged to meet. The experience of the past renders it all but certain that some of you will be called to the performance of this duty; and I therefore shall endeavor to prepare you for the fight, by disclosing the nature, the habits, and the vulnerable points of the enemy, that you may be enabled to exclude it from your neighborhood, or conquer it if it should succeed in entering.

Causes.—The first question which naturally presents itself in entering on the study of the disease relates to the *causes* which produce it. We should first answer the question, What causes do *not* occasion it? Thus, we may be sure that all possible combinations of natural causes, heat and cold, dryness and moisture and electricity, have existed in Europe and America from the beginning; yet they never developed cholera. Neither did any of the more accidental causes, such as famine, or war, the filth, the crowding, or the misery of the poor, the luxury or the voluptuousness of the rich, or the sensuality of all classes. The essential cause of cholera, like the cause of smallpox or of yellow fever, is specific. Yet we may inquire what circumstances favor the generation of the disease, what influences promote the development and propagation of its specific germs or morbid poison.

Heat.—A high temperature is undoubtedly one

of the most efficient among the causes which favor the dissemination of cholera. Its origin in the hot climate of Hindostan, and its general progress, prove this conclusively. In nearly all of the places where there is a great difference between the summer and the winter temperature, the disease has disappeared during the cold season, and attained its greatest intensity during the hot months of the year. In this country, at least, the rule is, I believe, without exception. Like yellow fever and miasmatic fevers, cholera shrinks and vanishes at the touch of frost.

The only apparent exception to this statement is the fact that cholera has prevailed in several cities of Russia during the winter. But this very exception confirms the rule; for in Russia the intense cold of the winter compels the inhabitants to seal their houses by every possible means, while the atmosphere of their interior is kept at a high temperature by huge stoves which render ventilation unusual, if not impossible.

The state of *moisture* or *dryness* of the atmosphere, its electrical condition, the prevalence of certain winds, etc., have been held to be conditions adapted to develop cholera. But none of these influences, taken in their largest sense, have been proved to exert a positive power in generating the disease. All kinds of weather, except the very cold, have been known to coincide with epidemics of cholera.

At the same time, I should mention that in London, and I believe that other places furnish similar illustrations, the mortality was in direct proportion to the lowness of the soil and its proximity to the river. But, when it is recollected that it is in these low and damp districts that the most squalid poverty and the densest population of the English capital exist, too much influence must not be allowed to the atmospheric cause; but, on the contrary, its full weight should be given to the depressing and deleterious action of want, filth, and vice. Wherever the streets are *dark*, *narrow*, and *filthy*, the houses crowded, and the inhabitants ill fed and ill clothed, the mortality of cholera is at least one-half greater than in districts whose inhabitants are surrounded by the comforts of life. In the United States I suspect that the difference between the two classes is even greater. It must be acknowledged that occasional exceptions to this rule have been observed, but not enough to invalidate it, nor to lessen our obligation to cleanse our houses when threatened by a visit from the pestilence; for most frequently it passes by clean and dry places to revel in filth and reek.

Another cause inseparable, almost, from the conditions which have been considered is intemperance in the use of intoxicating drinks. Wherever cholera has prevailed, its easiest victims have been drunkards; and, as the number of these degraded beings is greatest among the very poor and the vicious, the mortality of such classes of persons by cholera has always been excessive. It is unnecessary to cite illustrations in proof of a fact which is notorious and unquestionable. I must not be understood to say that the use of alcoholic drinks during cholera epidemics is necessarily injurious. On the contrary, I believe that such use of them as sober and Christian men may make is rather a preservative against the infection, as well by enabling the stomach to digest food more perfectly, as by promoting a degree of cheerfulness which is by no means the least efficient of the preservatives against the disease. A hopeful and happy disposition is generally thought to be as strong a shield against cholera as despondency and affright are believed to be an invitation to its attacks. It has been said in opposition to this view that the disease has been peculiarly fatal to the inmates of insane hospitals, who are supposed less liable than other persons to panic. But the objection is not valid. Of the insane, a large proportion are monomaniacs, and have at least as lively a sense of danger from an epidemic as other persons. Besides, the feeble bodily health, and the mental despondency of many more, render them peculiarly easy victims to all depressing diseases, and therefore in the last degree to the exhausting attacks of cholera, and indeed of all epidemics.

The quality of the *food* exerts a decided power in determining the attack. The coarse or scanty diet of the poor is no doubt to be added to the other causes already pointed out which operate unfavorably upon this class of society. It has also been observed that that form of diet which occasions attacks of sporadic cholera is most apt to favor the development of the malignant form,—to wit, exclusively vegetable food, particularly in its fresh or uncooked state, unripe fruits of all kinds, everything which is itself acid or tends to become so in the stomach, indigestible substances, such as pork, pickles, and salt provisions generally. The influence of a too exclusively vegetable diet in augmenting the mortality of cholera is perhaps shown by the enormous number of deaths which have occurred among the natives of Hindostan as compared with those among the European population in the same country. But too much importance is not to be attached to this circumstance; for in Ireland, where the use of a vegetable diet is so general, I cannot learn that the mortality from cholera has been unusually great.

The propagation of cholera is, however, due essentially to but one cause: CONTAGION. It must be understood that contagion may be *direct*, as where disease is transmitted immediately from one person to another; or *indirect*, as where the clothing of the sick, their fæcal and other discharges become the media through which the contagious germs are conveyed. Moreover, this indirect contagion may take place through the air that is breathed, or through the water that is swallowed, and therefore through channels which may be quite unsuspected of carrying it.

The question we have to solve is this:—Does cholera, outside of the locality in Hindostan where it originally prevails, give rise to other cases of the disease? If examples of this sort can be produced in any considerable number and perfectly authenticated, the question is decided. One that occurred under my own observation is the following: Years ago a severe and fatal epidemic of

cholera broke out in the Philadelphia Almshouse. The resident physicians were abundantly occupied in the ordinary care of the sick, and five or six young gentlemen were invited to take charge of the cholera patients. These patients were removed from the several parts of the house where they were originally attacked, to a building in the centre of the quadrangle, and were there attended by the physicians from the city who had volunteered their aid. Three or four of these physicians were attacked by cholera, and one of them died. At this time there was no cholera at all in the city, and the young gentlemen had, therefore, no predisposition to the disease. They were attacked while rendering their services to the sick; while the other, or resident, physicians of the house, did not suffer. Now, the only difference between the position of the two sets of physicians was that the one was in constant communication and contact with the cholera patients, and the other was very rarely so. I think, then, the inference is inevitable that the disease was, in this case, communicated from the sick to the well.

Dr. Alison, the eminent professor of Edinburgh, has published still more unequivocal instances, in which persons having left a place where the cholera prevailed for one in which no case of it had occurred, were there seized with the disease, and those in immediate attendance on them were also attacked. Yet the cholera did not extend in these places, and in fact no other cases occurred there at all during the rest of the epidemic. Similar examples have been related of the propagation of the disease in this country.

Other facts demonstrating the contagiousness of cholera may be cited like that at the Philadelphia Almshouse, and even stronger than it. *E.g.*, in 1832 the cases of cholera in Edinburgh were in the proportion of *one* to every *twelve hundred* of the population of the city; while among those in attendance *on the sick* the proportion was as *one in five*. In 1848–9, *one-fourth* of the nurses employed in the cholera hospital took the disease, while in the general hospital, "only a few paces distant," where no cholera patients were received, not a single attendant was attacked.

It has been again and again observed that persons employed to wash the body- and bed-linen of cholera patients have suffered in a much larger proportion than other persons of the same social condition engaged in different occupations. The introduction of the disease by a single ship among a previously healthy population is a fact which has been repeatedly observed. Thus it was that cholera entered Constantinople in 1865. A ship having cholera on board reached that port the first week in July, 1865; thence the disease passed into the hospital, where thirty fatal cases soon occurred; and from the hospital it passed into the city, where it soon became epidemic.

But the disease is communicated by contagion, less evidently indeed, but none the less certainly, whenever the discharges from cholera patients contaminate water which is used by healthy persons for drinking. This has happened again and again. In London there was a certain well into which the contents of a sewer had been percolating for months. Of the water of this well hundreds of persons had been drinking without any obvious injury. At last a case of cholera occurred near by; the dejections were thrown into a privy which communicated with the sewer and indirectly with the well, whereupon more than five hundred persons who received water from that particular well were attacked within three days.

Again, at Constantinople, in 1865, the clothes, mattresses, etc., of cholera patients were washed at a fountain, the basin of which was divided into two parts by a parapet wall; one part was used for washing clothes, and the other for drinking-purposes. Unfortunately, the waste-pipe being broken, the foul water of one side communicated with the clean water of the other, and in one day sixty people died in the small portion of the city which was supplied by the infected stream.

These facts, and countless similar ones, confirm the belief which is suggested by the symptoms of epidemic cholera, their essential identity with those of the sporadic form, and the condition of the alimentary canal after death,—that the material cause of the disease is a poison received into the body by the mouth and stomach, and that the only demonstrable agent in the dissemination of the disease consists of a specific poison contained in the alvine evacuations. It seems difficult to admit that the poison is *atmospheric*,—*i.e.*, inherent in the atmosphere, and not merely absorbed into it from the sick and their excretions; for we are acquainted with no facts whatever which prove the disease to have originated independently of previous cholera patients, or their dejections conveyed by clothing, water, air, or other possible vehicle. Nor has the atmosphere revealed any constituents, or conditions, during cholera epidemics, different from those of the healthiest seasons.

On the contrary, the whole history of cholera shows that it advances from point to point, wherever the *men or things* infected with it are carried; by gradual and short steps on land, as by caravans, or armies, or individual travellers, but with vast strides across seas and oceans, when it is conveyed in ships. Highways and railroads and river-courses mark out its path across continents, because in these the throngs of men are thickest, and continue, like the links of a chain, the long procession of cholera victims which had its beginning in the jungles of Hindostan. Seaports are its favorite halting-places; because in them infected ships and crews congregate. Great cities furnish its most numerous victims; because in them are the very hotbeds in which tens of thousands of human beings are perpetually kept upon the narrow verge which separates disease from health, and where the water, the air, the food, may all readily become contaminated by the germs of the pestilence and spread it through a thousand channels.

This dissemination from man to man, directly or indirectly, is sufficient to account for the spread of cholera; and it is unnecessary to invoke besides, as some persons do, an undemonstrated and occult

condition of the atmosphere which predisposes men strongly to be affected by the emanations from the sick, their excretions and clothing.

We may conclude that cholera is contagious, and that its contagious element is disseminated by whatever can carry a material poison: by bodies of men and by individuals; by ships and by clothing; by winds and by water, by dust and by food; and that the germs of the contagion are contained in the alvine evacuations and in nothing else. The probable nature of those germs we shall have occasion to speak of again.

Symptoms.—The symptoms of cholera are usually divided into three stages: 1. the *forming* stage; 2, the *cold* stage; and 3. the stage of *reaction.* Such a division is natural and proper, because the disease may terminate in any one of these periods: in the first, by an arrest of the attack; in the second, usually by the death of the patient; in the third, by his convalescence.

The forming stage, or stage of *invasion*, may be marked in some cases by a *sudden*, and in others by a *gradual*, development of symptoms. In the former the patient is seized with a general depression of all the faculties of mind and body. The senses are irritable, the head aches and is confused, there is a disinclination to sleep, the limbs totter under the weight of the body, the pulse is frequent and feeble, occasionally fainting takes place, and the skin is cool, and moistened with perspiration. When the attack is more gradual, the earliest symptoms are usually abdominal. Wandering pains are felt in that region; it is distended with flatus, and emits rumbling noises; there is more or less nausea, and a discharge of thin, yellowish, and offensive stools, which gradually grow lighter in color and more frequent. At the same time, the general debility and prostration are remarkably great, and sometimes slight cramps are felt in the limbs. This condition is of variable duration. Sometimes it precedes the full development of the attack by a few hours only; in other cases it lasts for a week or ten days before the graver phase of the disease appears. It is during this stage that the treatment of cholera is most successful: indeed, *it is the only stage in which we can rely upon the effects of remedies.*

The succession of the early symptoms, and the duration of the first stage, are generally such as I have described. But cases now and then occur in which the whole of these phenomena follow one another within the brief space of one or two hours. The patient is stricken down with sudden feebleness, is seized with profuse vomiting and purging and general spasms, and dies without any interruption of the symptoms or any tendency to reaction.

But, more generally, after a greater or less duration of the first stage, the second or cold stage is ushered in by a marked aggravation of all the symptoms. The discharges of fluids from the stomach and bowels grow incessant and more abundant, and vary from ten or twelve to twenty or even more in the twenty-four hours. They are usually passed without effort, and consist of a large quantity of serous liquid, at first somewhat tinged yellow with bile or fæces, but afterwards whitish or grayish, like rice-water, and containing flakes of coagulated fibrin or the *débris* of the intestinal epithelium. In a few instances the stools are tinged with blood.

Vomiting usually coincides with the copious purging. After the food which the stomach may happen to contain is thrown up, large quantities of a whitish or milky-white fluid, exactly like what is discharged from the bowels, are evacuated; more frequently, however, this fluid is at first tinged with bile. It is poured forth, less by the ordinary act of vomiting than by gushes, as if it overflowed from the throat and mouth; and it often escapes from the stomach and bowels at the same instant. Sometimes a distressing hiccup accompanies these symptoms. It is, indeed, but one of the spasms which affect the whole muscular system. They usually commence in the fingers and toes, seize upon the muscles of the calf of the leg, and render the muscular wall of the abdomen as hard as a board. The pain which they produce is extremely severe. At this period the debility is extreme; the patient is unable to rise, or even to move at all, except under the stimulus of the spasmodic pain. The features are shrunken; the nose is sharp and pale and bent to one side. The dusky and sunken eyes, the thin lips, the hollow cheeks, and contracted muscles that stand out like cords under the tight and clammy skin, present a physiognomy such as belongs to no other disease. The hands and feet grow cold, and steadily the coldness creeps upward towards the trunk; the integuments of these parts are shrivelled and damp, as if they had been long macerated in water; and, if they are pinched up, the fold of the skin remains for some time. The eyes grow dull and dry, the tongue has a pasty or sticky feel, the urine is almost suppressed. As the attack advances, the patients fall into a dull, listless, and motionless state, which must not be mistaken for insensibility, but which arises from complete muscular exhaustion and a want of energy in the cerebral and spinal functions. They express no interest in anything, and hardly notice the attentions or the distress of their friends. Yet they will generally give clear though languid answers to questions, and fall again into their inert and unobservant state.

As these symptoms advance, as the fluids of the body are wasted away, the blood accumulates and stagnates in the veins, and gives to the hands and feet, the nose and lips and other features, to the neck, and even to the entire surface of the body, a bluish, leaden, or violet tinge, precisely like that of cyanotic children. The pulse, which was already weak and thready, ceases to be perceptible; the carotids, even, can no longer be felt; then the impulse of the heart ceases, and its first sound becomes inaudible. The skin is everywhere cold, is sometimes of an icy coldness, and yet the patients seldom complain that it is so. Even the breath as it issues from the nostrils is cold.

The blood no longer circulates, and the heart is still. If a vein is opened, a few drops of black and viscid fluid trickle from the wound, and, if they coagulate, yield but little serum, and, in place of a clot, nothing but a diffluent jelly. The voice falls to a mere whisper, or is quite extinct. The features

assume a horrid aspect: the temples and the cheeks are hollowed; the nose is pointed, and the nostrils are obstructed with dry powdery crusts; the eyes are dry, dull, and sunken behind the half-closed and purple lids; the conjunctiva is no longer moistened by its secretion, and grows bloodshot; the temperature of the mouth may fall to 79° or 80°; a viscid exhalation bedews the icy and marbled skin; and the whole body is so shrunken from its natural proportions as to lose all marks by which its identity may be usually recognized. From this pulseless, cyanotic, cold, and exhausted condition there can be but one step to death. It generally comes on gradually, the patient sinking into complete insensibility; in other cases he expires suddenly upon making some unusual effort.

Reaction.—At any period of the progress which has been described, the contest between the system and the disease may be decided in favor of the former. If this takes place in the early stage, before there is any blueness of the skin or any very profuse evacuations, the recovery may be gradual and without remarkable phenomena. The pulse regains, more or less, its natural force; the skin grows warm again, first upon the trunk and afterwards upon the extremities; the breathing becomes easy, and, the diarrhœa having already ceased, convalescence is established. But in proportion to the violence of the symptoms, the intensity and duration of the cold stage, the cramps, and the evacuations, will be the tendency to an opposite extreme upon recovery, a tendency to febrile reaction, accompanied with more or less congestion of internal organs. The first sign of improvement is the subsidence of the evacuations, of the vomiting, and then of the purging, or, if the diarrhœa continues, it loses the characteristic appearances of cholera, and is more or less brown; the next step is the diminished coldness of the extremities; then the improvement of the pulse; and finally the restoration of the strength. Or, if the attack has been severe, particularly if the algid stage has been prolonged, fever of a low form is set up, which, indeed, may ultimately terminate in death. It is marked by dryness of the tongue, a brown crust upon the teeth and gums, jerking of the tendons, delirium, and coma; in one word, it is a typhoid state. Sometimes these symptoms are evidences only of exhaustion and of the inability of the system to resume its normal action; in other cases they appear to be due to a local inflammation of low grade established generally in the lungs, and which is usually latent. In other cases, again, the nervous system bears the brunt of the reactionary effort, and the patient is attacked by convulsions or perishes in an apoplectic fit. These phenomena appear to be due in most instances, if not in all, to renal obstruction, by which the effete matters of the system which should be excreted by the kidneys are retained in the blood, and the phenomena, as a whole, may be termed uræmic. In other cases a wasting diarrhœa, due probably to the damaged state of the intestinal mucous membrane, is superadded to the already existing typhoid state. Occasionally the parotid glands become enlarged and painful, and sometimes a measly or roseolous eruption appears upon the skin.

It frequently happens that convalescence is slow and irregular. The system seems shattered by the trial it has passed through; the nervous susceptibility remains morbid for a long time, or, what is still more usual, the function of digestion is greatly impaired. The appetite is capricious and the digestion feeble. The mouth is pasty, the abdomen tympanitic, the bowels are irregular and alternately confined and relaxed. Finally, patients who leave their bed too soon, or indulge prematurely in their ordinary diet, are liable to relapse, perhaps fatally, into the original disease. In fact, it has occasionally happened that such a relapse has taken place several days after an apparent restoration to perfect health.

Anatomical Characters.—In cholera, as in most other diseases, the pathological condition of the organs does little more than explain the *effects* of the disease properly so called: it reveals the mechanism by which the secret and inscrutable essence of the disease produces its ultimate effects, but it throws very little light upon the nature of that essence or efficient cause. But at the same time it leads to a probable conjecture of the primary element in the derangement of the organism, and explains in part, at least, the mode in which remedies which have been found successful in the treatment exert their salutary powers. I shall not attempt to present a detailed and minute account of this chapter in pathological anatomy, but shall draw attention only to its more important divisions.

And, first, of the *blood*. The grosser physical characters of cholera blood, as found after death, are these: As a general rule, the arteries are nearly empty; they sometimes, however, contain a small quantity of black and viscid blood. The veins and the right side of the heart are filled with dark blood, which is in general very imperfectly coagulated, and often fluid; even when clots are formed they are for the most part soft, and resemble blackberry jelly. The veins of the brain are usually gorged with liquid and black blood, and the same is true of the veins of the small intestines. The red globules themselves undergo important changes. They have lost their watery constituents and become shrivelled and irregular in shape, and may even be completely disintegrated. Such is the usual state of the circulating fluid; but some observers have found firm clots within the heart, more or less deprived of coloring-matter, forming true fibrinous coagula. Still, this condition is undoubtedly of infrequent occurrence.

Similar changes are found in the blood drawn during life. Owing to the loss of water, the proportion of its solid ingredients is relatively increased, so that a given bulk of it weighs more than an equal quantity of healthy blood. In other words, its specific gravity is increased. Thus, the maximum specific gravity of healthy blood is 1060, while that of cholera blood is 1080. The serum of the blood becomes denser than natural, and rises from 1028 to 1040. In like manner, when we come to examine the solid constituents of this fluid we find the proportion of

them all increased. The proportion of red globules rises from 140 to 170 parts in 1000. The fibrin, although its relative quantity does not increase, appears to have undergone important changes, for it coagulates with difficulty or not at all. The albumen, of which the normal proportion is 70, generally falls, and has been found as low as 49 (Becquerel and Rodier), a portion of it having been lost by percolation through the intestinal mucous membrane and by secretion through the kidneys. On the other hand, the fatty and extractive matters, like the globules and fibrin, are augmented, and in even a larger proportion. For normally they average ten parts in a thousand of the blood; but in cholera they rise to twenty, thirty, and almost to forty parts in a thousand. This remarkable circumstance has been attributed to the absorption of the adipose tissue, which is so general and so rapid in this affection. We shall presently see that this fatty matter is poured out through the intestinal tube. In connection with the state of the blood, a singular fact relating to the *temperature* of the body before and after death may here be noticed. In the algid stage all the external portions of the body are unnaturally cold, while the interior, as indicated by the temperature of the vagina and rectum, is above the normal grade; precisely as happens during the cold stage of the algid form of malarial fevers. In those patients who die during the collapse, and very cold, as was before remarked, the temperature of the surface rises one, two, or three degrees in the course of an hour or two; and the body is much longer in cooling than usual. Sometimes, indeed, the friends of the patient are led to hope that life is not altogether extinct. Another circumstance is apt to encourage this hope, or to inspire the ignorant with a mysterious horror. It is the *muscular contractions* observed in various parts of the body. They "vary in extent from flickering and tremulous undulations in a few fibres, scarcely to be seen or felt, to contractions sufficiently powerful to move the limbs from their position or even to displace the body itself." They begin shortly before death, and last a variable time, from a few minutes to two hours. Similar phenomena have been observed in other diseases, and especially in yellow fever.

On opening the *abdominal cavity*, one is struck by the general pink or rose tint of the peritoneal coat of the intestines. It is produced by a hyperæmia of the portal venous system; sometimes the color is very dark, the venous trunks being full of pitchy blood. The serous surface is drier than usual, and often has a sticky feel, from a layer of tenacious glutinous matter, which forms a lather when rubbed between the fingers. This shows it to be albuminous.

The dryness of the peritoneum is a type of the condition of all the tissues, of the meninges, the pleura, the pericardium, the brain, the lungs, the muscles, and the glands.

The *contents* of the intestinal canal vary somewhat in its different portions. In the *stomach* the liquid is generally thin, transparent, greenish or grayish, and occasionally has a tinge of deep red. It sometimes contains portions of coagulated mucus, resembling shreds of boiled rice, and also an unctuous substance which adheres to the walls of the organ and is thought to be modified albumen. Fatty globules have been observed floating in the gastric liquid, as they have also been in the stools and in the urine during life, as well as in the vomit of cholera.

The same serous fluid is found in the *small intestine*, but its color becomes a deeper red, almost of a chocolate shade, in the ileum. At the upper part of the bowel it is thicker than below; indeed, it seems at every step to be diluted by a fresh secretion of liquid from the mucous membrane. The epithelial shreds and patches are more abundant here than in the stomach, and along with them is also found the albuminous matter already described, deposited in a thin layer upon the surface of the bowel. In the *large intestine* the contents do not differ materially from those last described. In some cases the intestinal liquids, "when exposed to a temperature of 212° F., coagulate like the serum of the blood, and yield a similar odor, thus exhibiting the presence of a large amount of albumen." Some observers have failed to observe this effect,—partly, it may be suspected, because they neglected the necessary precaution of rendering the fluid, which is generally alkaline, acid before exposing it to heat; for unless this be done no coagulation will take place. The albumen, too, is often altered in its physical characters, and requires to be boiled with nitric acid before coagulating. The brown or chocolate color of the liquid in the small intestine which is sometimes observed, and which I have already referred to, is due to the presence of the coloring-matter of the blood derived from broken-down, and occasionally to the presence of unaltered, red corpuscles.

The *mucous membrane of the stomach* seldom presents any organic changes. Its tissue is swollen by the infiltration of serum. Its color is usually unnatural; sometimes pale, but more frequently of a rosy or of a purplish red, like certain onion-skins, or else of a dark brownish-red color, which is due to the congestion of the veins in the sub-mucous cellular tissue. When the color is light, hyperæmia is its principal cause; but when it is dark, congestion of the larger trunks and ecchymosis exist. Occasionally this membrane is reduced to the condition of a mere pulp. The same varieties of color are found in the *small intestine*, increasing gradually in depth from the duodenum to the cœcum, being most marked in the lower portion of the ileum, in consequence of the sub-mucous extravasation of blood at this point. Here, as in the stomach, the diffused and brighter redness is found to be due to extreme capillary congestion. But much more important changes are revealed by a microscopic examination. As long ago as the first American epidemic of cholera (1832–35), Prof. Horner, of the University of Pennsylvania, described an exfoliation of the epithelial lining of the alimentary canal, whereby the extremities of the venous system are denuded, as characteristic of cholera alone. And in 1849 Prof. Jackson, Emeritus Professor of the In-

stitutes of Medicine in the University, and Dr. John Neill, then Demonstrator of Anatomy in that institution, in conjunction with the late Dr. William Pepper, and with the late Dr. Goddard, who was also at one time Demonstrator of Anatomy in the University, presented a report to the College of Physicians, in which they, too, showed that "the epithelial layer of the intestinal mucous membrane was either entirely removed, or was detached, adhering loosely." I claim for the University the credit of having made this discovery, whatever may be its value, long before it was announced in Europe. Indeed, it was only in 1860 that the eminent pathologist and microscopist Dr. Beale, of London, arrived at the same conclusion. He says of the rice-water contents of the intestines, "This has been proved to consist almost entirely of columnar epithelium; and in very many cases large flakes can be found, consisting of uninjured epithelial sheaths of the villi. . . . In bad cases it is probable that almost every villus, from the pylorus to the ileo-cœcal valve, has been stripped of its coating during life." The capillary veins being also greatly distended, it is evident that there is no barrier to the transudation of the fluid portion of the blood into the intestine; while an almost insuperable one exists to any absorption from the bowel. The solitary glands are almost always distinct, their prominence and general increase of size being, for the most part, due to the œdematous state of the tissue in which they are contained, but partly also to the presence of a substance which appears to be albumen. The patches of Peyer do not undergo any real alteration, but, like the solitary glands, are swollen by an imbibition of serum. The mesenteric glands are slightly enlarged, and to some extent infiltrated with "a whitish, granular exudation" (Virchow), of undetermined nature, but probably albuminous.

In the *large intestine* are found the same changes of color and consistence of the mucous and submucous membrane as at the upper portion of the intestinal canal, but with much less frequency. The isolated follicles of this, as well as of the upper division of the bowel, are generally prominent, and sometimes extremely numerous.

Neither the *spleen* nor the *liver* presents any special alteration. The *gall-bladder* is generally distended with glairy bile. The *kidneys* are often congested, and the calices contain a large quantity of epithelial scales, which give the urine a turbid appearance in the bladder. The urine is albuminous, as it is found to be in the early stage of the disease. The *lungs* present no other lesions than result from hypostatic congestion; and the *pleuræ*, like the peritoneum, have sometimes a sticky feel. The *heart* offers no uniform alteration. The *brain*, too, is unchanged; but the pia mater is infiltrated with serum, which is also abundant in the lateral ventricles; and the cerebral veins are gorged with black blood.

Such is a succinct account of the most important pathological changes in the organism which are produced by cholera. And, now, do they throw any light upon the mechanism of the disease? That its primary cause is material, and acts upon the gastro-intestinal mucous membrane and upon the organic nervous system, we cannot doubt. The whole history of its epidemic progress proves this to be the case, as well as the lesions found after death. Unlike other epidemic diseases, such as typhus, yellow fever, the plague, etc., we can find no primary alteration of the blood in it, which will throw light upon the succession of the symptoms. These, on the contrary, point to the gastro-intestinal canal as the material starting-point of the morbid processes which develop the phenomena of cholera. All of the phenomena of the complete attack point in the same direction. Most of them succeed upon a profuse flow of the serous and watery portions of this fluid into the bowels. This it is that produces the vomiting and purging; this prostrates the patient, and wastes away, in a few hours, the fullest and firmest form; this chills the extremities and afterwards the trunk; this thickens the blood, so that the capillary vessels refuse any longer to convey it, and spreads its cyanotic shadow over the whole surface of the body; this cuts off the supply of blood from the heart; this paralyzes the nervous system, organic as well as animal; this obstructs the kidneys and arrests their secretion; and this, therefore, acting through the various links of the pathological chain, *is the cause of death.*

But what is the remoter cause of cholera? What sets in motion these successive wheels which end in crushing out the life of the cholera victim? Evidently, something received from without and swallowed. One opinion is that it consists of certain microscopic fungi, or their germs, which, on being received into the bowels, propagate their kind and destroy the epithelium. It is believed by some that this fungus takes its origin on the banks of the Ganges, and that it is produced upon the rice-plant. Having once originated the disease, its germs contained in cholera dejections, being mixed with water or borne upon the wind, enter the system of new victims, who, in their turn, disseminate the plague. Another theory is (Richardson) that, "as pus undergoes changes which convert it into a septic poison, so the excreted matter from the alimentary canal is equally capable, under peculiar conditions of oxidation, of producing an alkaloidal organic poison, which, soluble in water, but admitting of deposit on desiccation," becomes the agent for the dissemination of the disease. The former is the more generally accepted opinion, and seems to be supported by many facts; but the latter has numerous supporters and many facts also in its favor. Opposed to the latter theory, however, stands the insuperable objection that outside of Hindostan epidemic cholera never did and never does arise spontaneously, but can always be traced to its source in that country. Consequently, there must be in the disease a certain specific something, —whether a cryptogam or not is of subordinate importance,—an essential material, capable of propagating itself in the alimentary canal of human beings, of exciting there certain definite lesions and symptoms, and of communicating to the alvine discharges the property of occasioning the disease anew.

In what does sporadic cholera differ from malig-

nant epidemic cholera? Only in its cause and its degree. Its mechanism is the same. Yet sporadic cholera is a disease of the stomach and bowels usually produced by the direct application of irritants to their surface. This no one doubts. Wherefore it seems but rational to conclude that epidemic cholera is also an intestinal disease, which differs from the sporadic form chiefly by the intensity of its cause, the gravity of its symptoms, and the nature of the special cause which produces it.

(To be continued.)

ORIGINAL COMMUNICATIONS.

SULPHURIC ACID AS A PROPHYLACTIC IN CHOLERA.

BY ROLAND G. CURTIN, M.D.

THE long-looked for and much-dreaded visitor—the Asiatic cholera—seems to be prepared to spread its dark pall over our land. It is now approaching us by its well-beaten paths in Europe, and also by way of the lower part of the Mississippi Valley, where the poison is nursed by the higher temperature which favors its propagation. In another month it will probably be in our midst, seeking for victims to satiate its rapacious appetite. It therefore behooves us to be prepared for it. How shall this be done? From past experience in other epidemic diseases that have been effaced or robbed of their sting, it would seem that we must look for succor in prevention rather than in cure. It is my intention to give to the profession some experience which I hope may prove to be of value in regard to the prevention of the disease.

Our country was first visited by this unwelcome guest in 1832, next in 1848 and 1849, again in 1853 and 1854, and the last time in 1865 and 1866. During this last visitation I was resident-physician in the Insane Department of the Philadelphia Hospital. The disease had almost entirely disappeared from the city and from all parts of the Philadelphia Almshouse and Hospital, except from the women's wards in the insane department, where it still continued in a very virulent form. Strange to say, it was almost entirely confined to three of the seven wards on the female side of the hospital. It was so persistent that the Board of Health paid the hospital an official visit, but were unable to account for the presence of the disease in particular wards. It is true that the women's apartments were very much crowded, there being three hundred and fifty inmates, but the wards in which it was so prevalent had proportionately fewer inmates than others which almost entirely escaped. During the whole epidemic only two cases occurred in the male wards, while among the females one in every nine was attacked. Sex would not account for this difference, for statistics at large show that male and female lunatics are equally liable to the disease.

I was induced to try sulphuric acid by my friend Dr. James F. Wilson, with gratifying results, if I may be allowed to judge. Dr. Wilson had read an article in a British newspaper in which the writer stated that the workmen and their families connected with a large factory had been treated with sulphuric acid as a prophylactic during an epidemic of cholera. The correspondent stated in the letter that "the result was that not one man or any of their families were attacked with diarrhœa, whilst around them death took its own course." I caught as a drowning man at this straw, for everything else had been tried and yet the disease continued its ravages. After having concluded to use the sulphuric acid, the next thing was to administer it to all the patients, many of whom were so suspicious that they refused at all times to take medicine, for fear of being poisoned. Knowing that it would be impossible to conceal it in their food or usual drinks, I concluded to administer it disguised as lemonade, and announced through the nurses to the patients that I intended to "treat" the whole institution to lemonade every day, which announcement was well received in general, and by some of them with enthusiasm. The drink was made in this way. About twenty drops of the dilute sulphuric acid were mixed with four ounces of water and sweetened with white sugar. Some oil of lemon and a few cut lemons greatly assisted in the disguise. What followed the administration of the sulphuric acid can best be shown by the notes taken at the time. The diary was begun on August 20, 1866, before which time seventeen cases had occurred in the insane department.

August 20.—Four new cases.
August 21.—Four new cases.
August 22.—Four new cases.
August 23.—Two new cases. Board of Health visited the hospital.
August 24.—Five new cases.
August 25.—One new case. Acid given for the first time, in the afternoon.
August 26.—Four new cases *during the night*, within twelve hours after the first administration of the acid.
August 27.—No new cases.
August 28.—One new case,—a woman who refused to take the acid.
August 29.—No new cases.
August 30.—No new cases.
August 31.—No new cases. The acid was discontinued.
September 1.—No new cases.
September 2.—Two new cases,—two days after the suspension of the acid.
September 3.—No new cases. Acid resumed.

The acid was continued for some time, and no more cases occurred.

It will be seen by the above diary that up to the time of administering sulphuric acid the disease was pursuing a steady course in the female department. It is true, and should be here stated, that every means had been tried to banish the disease, such as ventilating and cleansing the wards, spreading disinfectants, scattering the patients by using the large sewing-room for a sleeping-ward, attention to diet, etc., but without apparent effect. The acid was first given on the 25th of August and continued until the 31st. Four cases occurred *within*

twelve hours of the time when the acid was first given. After this only one case occurred while the acid was being used, viz., on the 28th. This was a poor ignorant (?) lunatic, who, upon tasting it, spit it out, and surprised me very much by saying, with great vehemence, "Docther, ye call this limonade; but ye can't desave me; it's nothing but ile of vitriol." On the 31st of August it will be seen that the "lemonade" was stopped, on account of the exhaustion of the supply of white sugar in the drug-store, as without this sugar it would have been impossible to prepare the acid in such a manner as to insure the patients' taking it. On the 2d of September, *two days after the suspension of the use of the acid, two new cases occurred*, both of which proved fatal. The prophylactic was then resumed, and *no new cases* afterwards occurred in the insane department; but cases continued to arrive from the city until the 1st of November. The use of the acid was continued uninterruptedly for several weeks. My friend Dr. J. F. Wilson gave it to the patients in the surgical wards during the epidemic, and he informs me that the *cholera visited every department of the almshouse and hospital except the surgical wards.*

The question naturally arises, was it the sulphuric acid that arrested the march of the disease? I think it was, for the following reasons:

1. *The prompt disappearance of the disease within twelve hours of the time when the acid was first administered*, the only case arising during its use being that of a patient who refused to receive it. The acid was stopped on the 31st of August, and two days after this two cases occurred. The acid was then immediately resumed, and not a single case occurred afterwards.

2. *The fatality attending the disease.* When an epidemic declines from natural causes, it generally becomes less fatal. Of the four patients attacked on the 26th of August, three died, of whom one was a young, robust epileptic, who lived but five hours after the first symptom; another was a strong lunatic, who succumbed in nine hours. The two cases which occurred on the 2d of September, after the suspension of the use of the acid, both died; thus showing that the type was none the less fatal.

How did the sulphuric acid act? According to Dr. G. B. Wood, it has the following effects upon the system, viz., *tonic*, *astringent*, *refrigerant*, and diuretic. It has been largely used in the treatment of the first and second stages of cholera. Dr. Macnamara, in his work on Asiatic cholera, recommends the use of dilute sulphuric acid, in doses of fifteen minims, in the second stage. The celebrated "Austrian Specific" was composed of sulphuric and nitric acid. Nitric acid had been used in India in the treatment of cholera with considerable success. It was tried in England and found to be of no avail, when further investigation proved that the nitric acid of India contained a considerable amount of sulphuric acid. The latter was an accidental product of the manufacture of the nitric acid of India. Hence the use of the combination of these two acids in the treatment of cholera. Elixir Halleri, or liquor acidi Halleri, has been much used in India, and is ordered as part of the medical stores of the British army there. It consists of sulphuric acid and alcohol. Drs. Buxton, Sansom, and Fuller, of England, used sulphuric acid with success in the first stages of cholera, especially in the choleraic diarrhœa. From the above statements it would appear that sulphuric acid itself has some effect upon the disease; and now we will proceed to discuss its influence as a prophylactic.

It had been noticed that workers in copper were remarkably exempt from cholera, and upon investigation it was found that the air surrounding them was considerably charged with sulphurous acid, which gave rise to the supposition that this was the active preventive agent. This led to the use of sulphurous acid in cholera districts and hospitals, but with what results I have not been able to learn.

Dr. Burg, in reviewing the statistics of deaths from cholera, found that "out of thirty-two thousand artisans in copper, brass, and bronze, employed in Paris and other cities, during the last outbreak of cholera, only sixteen deaths resulted from that disease. Another interesting fact bearing on this question is that the city of Rio Tinto, surrounded as it is by copper-mines, has never been visited by this epidemic."

The sulphurous acid found near these mines proceeds from the smelting-works, in which the sulphurets of copper are generally used; other sulphurets often, being associated with the copper ore, also yield their sulphur to the atmosphere. Still further, it has been noticed that persons living near gas-works are less liable to be attacked than those living remote. Here also we find the atmosphere more or less impregnated with sulphurous gases. Almost all gas coal contains sulphur; and the process of purification in part consists in the removal of the sulphuretted hydrogen. Hence we discover a source of sulphurous gases, which gases may be the protecting agents. It may be, judging from these circumstances, that the cholera-germ is destroyed; for in the case of Rio Tinto, which is surrounded by sulphurous acid, it would seem to form an impenetrable barrier to the cholera. It is a well-known fact that sulphurous acid in the form of a sulphite will arrest fermentation; and it has been suggested that it acts in the same manner upon the zymotic cause of cholera.

But, again, we find that sulphuric acid seems to have an influence over the disease, which would lead us to ask whether the *sulphur may not be the destroying agent of the cholera-germ*, acting as a specific in the same manner that it does in the case of the itch insect. If this be true, the disease may be easily eradicated from a ship or a house or any infected locality by fumigating with sulphurous acid,—simply by burning sulphur; also disinfecting privy-wells and other objectionable places by means of sulphate of iron, and at the same time giving liquid sulphurous acid, sulphuric acid, and the sulphites, by the mouth, to those exposed.

It has already been stated that sulphuric acid may act beneficially independent of any specific action upon the cholera-germ.

I have said that it is a tonic, astringent, re-

frigerant, and diuretic. The vital energies are often very much reduced, digestion is poor, and the intestines and the system at large are in a relaxed condition, the result of the high temperature of summer. Here we find the condition favorable to an attack of cholera. The tonic, astringent, and refrigerant effects of the sulphuric acid would all be eminently indicated by these conditions, and its administration might tide the patient over the period of danger. It may also act beneficially in another way. We all know the depressing effect of fear, which undoubtedly predisposes to cholera. A prophylactic given in such cases would allay the fear and thus ward off the disease. But this latter condition was not a characteristic of the poor lunatics in the Philadelphia Hospital; for many of them knew no fear except that produced by their hallucinations. It is pleasant to have a preventive at hand; but in none of the text-books have I been able to find anything recommended as such in cholera. Having one, we might be able to quiet the fears of the nervous and keep them from the often injurious nostrums of those who prey upon this class.

One thing should be remembered. It is this, that sulphuric acid, when administered for a long time continuously or in too large doses, may give rise to symptoms of intestinal irritation. However, although the acid was given to the lunatics uninterruptedly for several weeks, no ill effects were observed. It should be given only to those who are greatly exposed during an epidemic of cholera; otherwise the above unpleasant effects may be produced.

332 South Seventeenth Street, Philadelphia.

A SUGGESTION FOR THE TREATMENT OF APPROACHING COLLAPSE IN CHOLERA.

BY WILLIAM PEPPER, M.D.,

Lecturer on Clinical Medicine at the University of Pennsylvania.

IT is with no intention of discussing at length the causes, pathology, or treatment of cholera that this brief practical article is penned. The investigations into the precise nature of the cholera-poison cannot yet claim to have attained definite and complete results. Nor can it be asserted that any of the various explanations of its *modus operandi*, however ingenious and plausible, affords full and unquestionable satisfaction.

That which is, however, well known and generally accepted in regard to the mode of action of this fatal poison, is fortunately of material value for practical purposes. It may be concluded, at least, that the peculiar symptoms of true cholera depend upon the presence in the economy of a specific virus, introduced often by the drinking-water, though probably also by other avenues, which produces a wide-spread, peculiar irritation of the gastro-intestinal mucous membrane (and probably of associated secreting glands), attended with rapid epithelial proliferation, usually with profuse serous discharges; a special morbid state of the great ganglia of the sympathetic nerve; and serious changes in the blood-mass. I do not even raise the question (for the precise settlement of which I do not think the data yet exist) as to which of these may be the primary change: whether, in other words, the specific gastro-enteritis is the primary essential condition, and the morbid excitation of the sympathetic nerve, and the blood-changes, secondary and subordinate steps; or whether the alterations of this fluid are the initial phenomena, due to the presence of a poison having a special action upon the sympathetic ganglia, and the gastro-intestinal irritation and the profuse sero-epithelial discharges the result of an effort to excrete this poison; or whether, finally, the virus acts directly and primarily upon the great sympathetic nerve-centres, and the gastro-intestinal changes, the peculiar discharges, the alterations in the blood, and the attendant general symptoms, are consequent upon violently disturbed function.

The symptoms of true cholera,—the formative stage of mere intestinal irritation, cholerine, so called; the stage of characteristic sero-epithelial discharge, with its symptoms of intense gastro-intestinal and reflex muscular irritation; the stage of collapse, with its wide-spread and profound disturbances of respiration, circulation, calorifaction, and secretion; these are too well known from the exquisite classical descriptions to need repetition. My own belief with reference to the mode of their production is, that while the primary essential condition consists in the extensive and severe irritation of the gastro-intestinal mucous membrane, a very large and important share in the causation of the discharges and the consequent alterations of the blood, and especially of the symptoms of collapse,—the failure of the cutaneous circulation, the condition of the respiration and action of the heart, the arrest of secretions,—must be attributed to the direct or indirect implication of the abdominal and thoracic sympathetic ganglia. There is nothing original in this view of the vastly important *rôle* played by the sympathetic nerve in the production of the symptoms of collapse,—whether in cholera or other conditions which may closely simulate this phase of that disease, as acute intestinal obstruction or poisoning by some acrid substances. Want of space forbids me to amplify it now. I will merely remark that there seems no reason to doubt that while the direct, continued, and intense irritation of the gastro-intestinal fibres of the abdominal sympathetic might well paralyze them and cause paralytic dilatation of the gastro-intestinal capillaries with free discharges of serum, there might be a wide-spread irritation of less intense degree of the other branches of the abdominal and also of the thoracic sympathetic, producing the arrest of circulation and secretion, the slowing of the heart, and the disturbance of respiration, which contribute to form the stage of collapse.

Certainly for practical purposes we must recognize the presence of the three elements of gastro-enteritis, of irritation of the sympathetic nerve, and of serious blood-lesion. During the formative stage of the disease and the early part of the second stage, the first of these elements is predominant; later,

the evidences of the other two make their appearance and herald the approach of its concluding and gravest phase. The indications for treatment are to be found in the above considerations. The supreme importance of the prompt treatment of cholerine, or of any and every evidence of gastro-intestinal irritation occurring during the prevalence of cholera, is well recognized; and the rules for its relief, by rigid diet, absolute rest, and the moderate use of opium and sedative astringents, are generally accepted. The conflicting theories of the *modus operandi* of the cholera-poison have led to confusion in regard to the management of the stage of discharge; and mischievous results have followed the application of some of the specific plans for its treatment based upon peculiar views of the significance of this symptom. Not one of these specific plans appears to merit approval. Those who have seen most of this dread disease seem most inclined to rational modes of treatment based upon sound general principles.

Among the most important of the general rules for the management of this stage of discharge, may be mentioned, the enforcement of absolute rest in the horizontal position, in a cool, well-ventilated, and disinfected room; the administration of small quantities of bland nourishing food at comparatively short intervals; the administration of fluid, even if portions of it are speedily rejected; the effort to maintain heat and circulation by external applications; the avoidance of stimuli, save in very minute quantities, freely diluted; the moderation of the discharges and the relief of the painful cramps by such remedies as the mistura medica, or chlorodyne; and the use of full doses of such drugs as bismuth, for the benefit of its local sedative and astringent action. Frequently, however, despite the most judicious and prompt treatment of this stage, the disease hastens on towards the condition of collapse. The discharges may, to a great extent, have ceased; but the alterations of the blood and the implication of the nervous system have advanced too far, and unmistakable evidences of collapse make their appearance. The most varied and contradictory plans have been suggested for the relief of this alarming state and the prevention of the deeper and hopeless degrees of collapse. The object of this little article is to suggest another plan, which it was my intention to have used had any cases of cholera come under my care this summer, and which I have now hastily written out, being at a long distance from home and from the present seats of the epidemic, thinking it might merit a trial. The demand in this state of approaching collapse, in addition to a continuance of the measures suited to the previous stage, is for some means of producing reaction and restoring to the blood its fluidity and properties which fit it for circulation. The effects of such measures as cold affusion or venesection are evidently but temporary and palliative, and do nothing towards the actual relief of the blood-lesion. Towards this end, the use of injections of warm saline solutions into the veins seems to contribute more directly than any other measure; and in the late epidemics of cholera abroad, such injections have been employed with considerable success. They aid in restoring to the blood its bulk, fluidity, and saline property, and certainly produce in many cases a remarkable re-establishment of circulation. I can see no reason why the saline ingredient employed should not be dissolved in a dilute albuminous solution, so as to combine some nutritive value with the above-mentioned properties.

Being impressed with the large share taken by irritation of the sympathetic nerve in the production of the symptoms of collapse, and remembering the wonderful controlling influence exercised over some morbid states due to similar irritation (I refer chiefly to convulsion, whether epileptic or symptomatic) by large doses of the bromide of potassium, it has occurred to me that this drug might be of service in the stage of cholera we are considering; and, as it is impossible to secure the introduction of a sufficient amount by the mouth or enema, that it should be given by injection into the veins (grs. xlv in f℥iij water, repeated at intervals of twenty minutes). Such a measure would probably secure the advantages of injections of other saline substances, and in addition it would enable this remedy to exert its full power over the state of irritation of the sympathetic nerve, which it so wonderfully controls under some other conditions.

I had intended, if any cases of cholera in this dangerous and too often fatal stage had presented themselves to me for treatment, to have fairly tried the use of *large* doses of bromide of potassium, given by injections, of such strength and in such quantities as experience has shown safe in regard to other salines.

COMPOSITION OF VALENTINE'S PREPARATION OF MEAT-JUICE.—BY WILLIAM H. TAYLOR, STATE ASSAYER, VIRGINIA.

Water		61.12
Organic substances		27.90
Containing uncoagulated albumen	1.11	
Fat	.13	
Creatin, creatinin, and other organic constituents of flesh-juice and blood	26.66	
Inorganic substances		10.98
Containing chloride of sodium	1.42	
Sulphate of potash	.52	
Phosphates of iron, lime, and magnesia	1.21	
Phosphates of potash and soda	7.83	

—*Virginia Clinical Record.*

TREATMENT OF CHRONIC DISEASES OF THE BLADDER WITH INJECTIONS OF HEALTHY URINE (*Lancet*, May 10, 1873).—Dr. T. Clemens proposes injections of fresh and healthy urine in the treatment of old disorders of the bladder, such as catarrh, chronic inflammation, gravel, etc. A young and well-fed individual should be made to micturate directly and slowly into a syringe which has been warmed to 90° Fahr., and the urine should then be injected into the bladder, previously emptied and washed out with tepid water. This should be done twice or thrice daily. He has obtained good results in this way after having failed in the use of all known remedies.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, JULY 12, 1873.

EDITORIAL.

IN the mortality list of our issue of July 5 there is reported a death from sporadic cholera. Thinking it might interest our readers, we have written to Dr. W. H. H. Githens, and obtained the following report of the first case, closely resembling cholera, occurring in our city this summer:

"June 26, 1873.

"TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

"Edward McN., a sober, industrious shoemaker, working at home, was somewhat depressed by the loss of a child, and the next day was himself taken sick with purging, vomiting, and cramps in the stomach and legs. The stools were liquid fæcal matters at first. His wife gave him boiled milk and water to drink, and the subsequent passages consisted of diluted milk, with little or no change of color (alkaline in reaction). The matters vomited had the same appearance, and were not bitter.

"The next morning, on being summoned, I found the patient partially collapsed. I immediately administered morphia sulphate—gr. ¼—hypodermically, and prescribed a mixture containing bismuth and morphia, to be taken at short intervals, with aromatic sulphuric acid to be added to the water which I allowed him to drink as soon as the morphia had quieted his stomach. There was no recurrence of either the purging, vomiting, or cramps after my first visit, but the skin did not return to a healthy condition. It remained cold (thermometer not used), cyanosed, shrivelled, and bathed in a profuse perspiration. The suppression of urine, which had been but partial before the use of the morphia, became complete afterwards; the voice remained whispering; the pulse soon became imperceptible at the wrists, and he died about sixty hours after the commencement of the attack.

"Shall we call this a case of cholera? There was no recognized source of contagion. The man and his wife and two children lived, worked, ate, and slept in one small apartment in the second story of a house in the most crowded section of the city. The room had windows on the north side only. The whole house was pervaded with a horrible odor from a privy-well immediately beneath it, and not provided with any chance of ventilation or any sewer connection.

"But these conditions, although favorable to the spread of cholera, are not recognized as being sufficient in themselves to originate it. On the other hand, we had all the symptoms of cholera,—watery discharges, free from odor, vomiting without bile, cramps in the stomach and limbs, suppression of the urine, loss of voice, intense thirst, great depression of temperature, failure of the heart's action, freedom from anxiety on the part of the patient, and the tendency to death not averted, although the prominent symptoms had been relieved sixty hours before that event occurred.

"Is opium contra-indicated by the tendency to suppression of urine? That symptom was more marked in this case after the use of the morphia than before; and I have noticed in one child that the secretion of urine is remarkably diminished by the use of paregoric."

We have not been able to obtain sufficient information at present writing to enable us to lay before our readers a sketch of the epidemic of cholera now prevailing in the West. It appears, however, to have been introduced from Europe into New Orleans, and to have spread in the usual manner along the routes of travel in the Mississippi Valley, reaching as far as Cincinnati, where, however, it has not attained any severity. It has been denied that the disease is true epidemic cholera; but, in view of the large number of deaths that have occurred, we do not see what else it can be; and Dr. B. W. Avent, of Memphis, Tenn., writes us that it is cholera. The epidemic appears to be subsiding, and from present appearances its reaching this neighborhood is problematical; although a second fatal case of disease exactly simulating cholera occurred here on July 6, in the same quarter of the city as that of Dr. Githens.

THE material for our columns relating to the subject of cholera has accumulated to such an extent that a single number would not suffice to contain it. We have for this reason divided the lecture of Prof. Stillé, as well as the leading article upon disinfectants. The concluding portions of them will appear in the next number of the journal.

AS we go to press, we learn that the cholera, or at least choleraic disease, has appeared in Jersey City.

LEADING ARTICLES.

DISINFECTANTS.

WITHIN the last two or three years a great deal has been written upon the subject of disinfectants, with the result of unsettling what was considered at one time a settled matter; but, in the doubt which remains, certain principles can be seen looming up and apparently shaping themselves into positive truths.

Chief among these is the folly of attempting to disinfect the atmosphere. It may be possible to decompose sulphuretted hydrogen in the air by chlorinated lime; although even this is somewhat doubtful. It certainly is possible to cover up one stink by another: and this is what is probably done with the saucers of chlorinated lime yet seen about some hospital wards in which antediluvian ideas prevail;* but we have learned that contagion is certainly not sulphuretted hydrogen, any more than it is a bad smell, for the worst odor may exist without contagion, and the most deadly contagion may lurk in a fluid or an atmosphere free from odor.

Contagion appears to be one of two things,—organic alkaloids or other compounds of some sort, or else living germinal matter, animal or vegetable.

It is self-evident that a substance chemically powerful enough to disorganize organic compounds must be inimical to human life,—that a material sufficiently powerful to kill germinal matter of low organization must be destructive to germinal matter highly specialized and therefore highly sensitive.

It follows that any atmosphere capable of supporting human life is incapable of destroying contagion.

An efficient disinfection of a room, its atmosphere, and the furniture in it, certainly cannot be carried out with any person in the apartment. If it can be done at all, it will be by adopting the following plan:

Take a large iron pot† or caldron, put in it a little stand, such as the cheap tripod used by chemists, place on this an iron plate containing flowers of sulphur thoroughly wet with alcohol or (probably better still) with turpentine; underneath the plate set a tin alcohol lamp; then put the whole on bricks in the middle of the room, whose chimney, doors, and windows have been closely sealed, the drawers, closets, etc., having been widely opened. Light the lamp underneath the dish, and if the sulphur do not take fire previously, when it begins actively to melt, ignite it. Leave the room at once, closing the door. Unless the apartment become densely filled with the fumes, far beyond what could be supported by a human being, the attempt at disinfection cannot be of any service.

Even when this method of disinfection is carried out most thoroughly, it is still uncertain how completely the chamber is disinfected: to rely upon it to the exclusion of free, thorough ventilation afterwards, would be the sheerest folly.

It is evident that for ordinary purposes the only method of disinfecting an apartment is to be found in ventilation,—a dilution of the contaminated atmosphere by pure air until the point is reached at which the contagion is too slightly concentrated to affect human beings.

The question now arises, What is the province of disinfection? and the answer evidently is, To alter the constitution of liquids and solids.

We think here it is necessary to pause to get clear ideas about a matter which has been strangely confounded.

The cholera is approaching: the cry is to disinfect the cesspools. The cholera is here: the cry is to disinfect the discharges. It is evident that the objects to be gained in the two cases are different. There are no "contagion germs" in the cesspools, but putrefying organic matter. There is no putrefying organic matter in the cholera discharges, but a poison to be destroyed, —a poison whose nature is not known but is believed to be connected with life.

The point I want to make is that before the subject of disinfection can be made perfectly clear it is necessary to keep in view the two different results to be achieved, namely, the prevention of putrefactive fermentations in organic matter, and the destruction of germs already existent.

Having a distinct idea of what we desire to do, it is next in order to determine what we have to do it with.

Dr. Jeannel (*L'Union Médicale*, tom. xii.) arranges the disinfectants as follows:

1. *Oxidizing Agents*—air, oxygen, ozone, hyponitric acid.

2. *Dehydrogenizing Agents*—chlorine, hypochlorites, iodine, bromine.

3. *Deoxidizing Agents*—sulphurous acid, sulphites, hyposulphites.

4. *Desulphurating Agents and Coagulators of Albuminous Matters*—lime, salts of alumina, of zinc, of lead, of iron.

5. *Antiseptic Agents*, which kill germs—carbolic acid, its congeners and substances containing it, thymic acid, etc.

6. *Absorbing Agents*—charcoal.

It would not be difficult to make objections to this classification. Thus, the chief value of sulphurous acid as a disinfectant appears to depend upon its power of killing the low forms of life. It is, therefore, an antiseptic, and the possession by it of any powers beyond this is somewhat doubtful. Still, the classification is sufficiently accurate for practical purposes; so that we may take it for our guide in studying the subject of disinfecting putrefying matter. The method which nature employs for purification, as in water containing organic material, is by oxidation; and it seems as though in our present state of uncertainty the only

* By concealing the more apparent effects of bad ventilation, these so-called disinfecting saucers are really worse than useless: they actually do harm, and should be banished from the sick-chamber. The attempt to purify the air by means of them reminds one strongly of the wrath of Mrs. Partington when the Atlantic Ocean rose against her, and of her well-directed efforts to sweep it back with a broom.

† As this article is written for sensible people, it is not necessary to lay any stress upon the pot being large enough, and upon other precautions being used to avoid the risk of fire.

disinfectant worthy of absolute trust would be an agent capable of entirely oxidizing organic matter. Fire is such an agent; but it is too destructive, and often not readily applicable.

Permanganate of potash possesses the power of oxidizing dead organic matter freely; but, as every one knows who has applied it to a raw surface, its action on living tissue is feeble; and, according to Carmao-Dumenez and Demarquay, portions of lungs and liver immersed in a concentrated solution of the salt undergo putrefaction. I am not aware that experiments have been made as to its power of destroying living animal germs; and when to these facts are added its costliness and the large amount of it required for any service, because it uses its own oxygen only in the destruction of organic matter, it becomes evident that its practical value is slight. The same remarks apply in a still more forcible manner to the other substances in class No. 1.

In regard to the second class of substances, chlorine, in the form of chlorinated lime, is the only one worthy of attention; the extreme costliness of the other preparations renders them of no practical value. Chlorinated lime is certainly a very rapid and effective disinfectant, especially in regard to sulphuretted hydrogen. Its odor is, however, only a little better than that of the latter compound, and proof seems wanting that it acts with equal rapidity and effectiveness upon organic matter. Its comparative costliness and its bad odor certainly prevent its occupying the first rank as a disinfectant for uses such as we are now speaking of.

The third class of substances are far too costly for use as preventives of putrefaction on a large scale.

Lime, the first substance in the fourth class, is probably the oldest of all the disinfectants, and in some respects is efficient, although on the whole its general use is to be reprobated. It does not act merely as a desulphurating and coagulating agent: it, like the other strong alkalies, causes catalytically a slow oxidation of organic matter. Thus, ozone of itself will not oxidize olein, but if potash be added to the mixture the reaction commences at once; and it is notorious that a compost-heap which has lime in it rots—*i.e.* oxidizes—much more rapidly than one which has none of the alkaline earth in it. This action of lime is, however, too slow for ordinary purposes: moreover, there are very serious objections to its use as a disinfectant.

The poisonous principles contained in sewage, etc., whatever their nature may be, are probably volatile, and lime, acting as a strong base, sets free large quantities of ammonia in animal matter undergoing decomposition. It may be that volatile poisons, alkaloids, are liberated with the ammonia; but, whether they are or not, it is a well-known physical fact that a volatile substance in escaping carries off with it even non-volatile materials, and facilitates to a still greater degree the escape of principles only less volatile than itself.

Our choice of disinfectants for sewage, privies, etc., is therefore narrowed down to the fourth and fifth classes.

Owing to its much greater cheapness, the impure sulphate of iron—*copperas*—is by long odds the most available of the substances of the fourth class. The question of the comparative value of it and carbolic acid admits of not a moment's debate. The comparatively extreme dearness of the latter agent, its horrid odor, and its very marked poisonous properties, would forbid its use were it vastly more effective than the iron salt. In truth it is not. There is no reason for believing that carbolic acid affects any compounds formed before it is used; it certainly does not decompose sulphuretted hydrogen; it simply arrests decomposition by acting as a parasiticide, and when from any reason the percentage of it in a solution containing organic matter becomes reduced below a certain point it leaves the organic matter free to recommence putrefaction. Not so with copperas: it is antiseptic, but it also decomposes sulphuretted hydrogen, precipitating sulphide of iron; it is decomposed by ammonia, the oxide of iron, a persistent, powerful ozonizing agent being precipitated; it slowly but persistently attacks organic matter about it, oxidizing it and being reduced to a sulphide of iron. As copperas is very cheap, theoretically, it is the most efficient and valuable of the disinfectants, and practical use has shown, its price being considered, that it is the best. The common mistake is in not using it in sufficient quantity. At the ordinary drug-stores it is sold for from seven to fifteen cents a pound; and twenty-five pounds of it seems a great deal to the purchaser. Professor Genth, however, informs me that by the quantity impure copperas can be bought for seven-eighths of a cent a pound; and at this price in time of a cholera epidemic our streets should be watered with its solution.

The value of sulphate of iron does not rest, it must be remembered, upon theory only, but also upon experiment. In the *Zeitschrift des Oester.-Apothek.-Vereines*, February 10, 1873, Albert Eckstein published an account of his attempts to disinfect a privy which was used daily by one hundred persons, and the results are so interesting that they are here transcribed:

1. Two pounds of sulphate of iron in solution. After from two to three hours all bad smell had disappeared, but in twelve hours all the influence of the disinfectant was lost.

2. Sulphate of copper in solution, the same.

3. Two pounds of sulphate of iron in crystals; their effects lasted two days.

4. Sulphate of copper, the same.

5. Sulphurous acid in solution rapidly lost its effect, and was exceedingly irritating to the respiratory organs.

6. Two pounds of impure carbolic acid filled the house for two days with such a disagreeable smell that it was impossible to tell whether the original odor was destroyed or covered up.

7. Two pounds of sulphate of iron in a parchment sack exerted a disinfecting influence for three full days, and when the parchment sack was drawn up it contained only some dirty, odorless fluid.

8. Two pounds of the best chloride of calcium in the parchment sack disinfected the privy for at least nine days.

H. C. W., Jr.

(To be continued.)

SELECTIONS.

A CERTAIN SIGN FOR THE RECOGNITION OF CHOLERA IN THE EARLY STAGE.

DR. A. HERMANN has a paper upon this subject in the June number of the *Allgem. Wien. Med. Zeitung*, which is translated in *The Clinic* of June 28:

"All authors are agreed that the first urine after the collapse differs markedly from normal urine in *containing albumen, cylinders, hyaline and granular*, in abundance, and writers are tolerably unanimous in the opinion that the danger of the typhoid stage is due to the kidney disease which is thus developed.

"The discovery of the author consists in the *detection of albumen cylinders and epithelium in the urine during the time of the precursory diarrhœa*. If the examination of the urine show negative results, *cholera will not ensue*. The author has had now forty-eight cases in which to establish his discovery as a fact. In no one of these cases has he been deceived in his prognosis. It is very true that in *stadium asphycticum* little or no urine at all can be obtained for testing purposes; yet if catheterization be regularly practised (and it should never be omitted in cholera) enough may be obtained at some time for chemical and microscopical examination. The author does not claim priority in the discovery of albumen in the urine of cholera collapse. Simon and Hermann called attention to this fact in the third decade of the present century. The author's claim consists in the discovery of albumen in greater or less quantity during the stage of the '*diarrhœa premonitoria*.'

"Should an individual in health be suddenly attacked with diarrhœa, even during a cholera epidemic, *and should on examination no albumen be found in the urine, cholera will not develop*, not even if the individual be in such a position that he cannot protect himself in any way. Such a diarrhœa may even be maltreated and still it will not lead to cholera, but will resolve itself in time, even though it may have reached such a grade as to have been called cholerine or even cholera.

"But if albumen be found in the urine of an individual suffering with diarrhœa—with cylinders and kidney epithelium under the microscope—still the diagnosis of cholera is not absolute of course, as other affections may bring about this condition; yet as this manifestation is constant and never failing in cholera, as the collapse and typhoid condition are only observed in this condition, such a diarrhœa is to be diagnosticated as cholera when the other affections productive of albuminuria are excluded.

"It matters not whether the symptoms be light or severe, when albumen presents in the urine it establishes the existence of true cholera, and the graver symptoms will manifest in a short time.

"The author concludes his paper as follows: New observations have only confirmed me in the opinion before expressed that '*however severe and apparently choleraic the symptoms may be, the disease is not to be considered as true cholera if albumen be absent in the urine; on the other hand, the most anxious attention is to be directed to a case even in the earliest diarrhœa when the urine is albuminous.*"

MISCELLANY.

FRECKLES, it is said, are removed by the application, twice a day, of powdered nitre moistened with water.—*Southern Med. Record.*

ACTION OF THE BROMIDES IN PRURIGINOUS AFFECTIONS.—Dr. Guéneau (de Mussy) extols the efficacy of the bromides applied locally in pruriginous affections of the external and internal integuments. He recommends their use especially in pruritus vulvæ. He employs the bromides either in ointment or solution.—*Druggists' Circular.*

A NEW HYGROMETER, made in Paris by G. Smith, consists of strips of paper dipped in a cobalt salt solution containing common salt and gum Arabic. In dry weather it is blue, and in wet rose-red.

WEEKLY RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FOR THE WEEK ENDING SATURDAY, JULY 5, 1873.

DISEASES.	Adults.	Minors.	DISEASES.	Adults.	Minors.
Abscess	1	1	Fever, Typhus	...	1
Anæmia	1	...	Fracture of the Thigh	1	...
Apoplexy	5	...	Hemorrhage	...	1
Asthma	1	...	" from Lungs	1	...
Burns and Scalds	3	1	" Stomach & Bowels	2	...
Cancer	1	...	" Uterus	1	...
" of Uterus	4	...	Hooping-Cough	...	3
Casualties	4	...	Inanition	...	7
Cerebro-Spinal Meningitis	...	3	Inflammation of Brain	2	7
Child-Bed	1	...	" Bronchi	...	2
Cholera Infantum	...	83	" Heart	...	2
" Morbus	1	1	" Liver	1	...
" Sporadic	...	1	" Lungs	3	7
Cirrhosis of Liver	2	...	" Peritoneum	1	3
Congestion of Brain	3	2	" Pleura	1	1
" Lungs	1	1	" Spine	1	...
Consumption of Bowels	1	...	" Stomach & Bowels	4	2
" Lungs	36	2	Intemperance	1	...
Convulsions	1	17	Jaundice	...	1
" Puerperal	1	...	Mania a potu	1	...
Cramps	1	...	Marasmus	2	7
Croup	...	3	Neuralgia of the Heart	1	...
Cyanosis	...	1	Old Age	5	...
Debility	5	10	Paralysis	4	...
Diarrhœa	3	7	Pyæmia	...	1
Diphtheria	...	1	Scrofula	...	1
Disease of Brain	1	...	Smallpox	2	...
" Chest	1	...	Softening of Brain	4	...
" Heart	7	...	Still-Born	...	11
Dropsy	1	1	Suicide	2	...
" of Brain	...	5	Sunstroke	1	...
Drowned	6	2	Syphilis	...	1
Effusion on Brain	...	1	Tabes Mesenterica	...	1
Epilepsy	2	...	Teething	...	1
Erysipelas	1	...	Tetanus	1	1
Fatty Degene'n of Liver	1	...	Ulceration of Throat	1	...
Fever, Hectic	1	...	Wounds, Gunshot	...	1
" Puerperal	1	...			
" Scarlet	...	8			
" Typhoid	1	...			
TOTALS				142	213

METEOROLOGICAL OBSERVATIONS TAKEN AT THE SIGNAL OFFICE, PHILADELPHIA, DURING THE WEEK ENDING SATURDAY, JULY 5, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain. In.
JUNE.				
Sunday 29th	29.83	75	Cloudy, Fair.	.10
Monday 30th	29.80	75	Cloudy, Fair.	.05
JULY.				
Tuesday 1st	29.89	78	Lt. Rain, F'r, Cl'r.	.62
Wednesday 2d	30.09	81	Clear, Fair.	.....
Thursday 3d	30.02	83	Clear, Threatening.	.....
Friday 4th	29.94	85	Fair, Clear.	.01
Saturday 5th	29.82	79	Cloudy, Fair, Clear	.....
Means	29.91	79		.78

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

SATURDAY, JULY 19, 1873.

ORIGINAL LECTURES.

A LECTURE
ON EPIDEMIC OR MALIGNANT CHOLERA.

BY ALFRED STILLÉ, M.D.,

Professor of the Theory and Practice of Medicine in the University of Pennsylvania.

(Concluded from page 649.)

DIAGNOSIS.—The only diseases which malignant cholera resembles are the sporadic form of cholera, serous diarrhœa, and poisoning by certain irritant substances. I have already intimated the difficulty of making a distinction between sporadic and epidemic cholera, founded upon the symptoms alone. In both there may be vomiting and purging, coldness of the limbs, cramps in the legs, feebleness of the pulse, abdominal pain, and faintness. In the epidemic disease the additional symptoms seem to depend upon the profuse loss of fluids from the bowels. In the sporadic form the discharges are mucous and bilious for the most part, and take place first from the stomach and afterwards from the bowels; in the epidemic they are serous, or at least watery, stools, and for the most part exist for some time before vomiting sets in; when they become profuse the skin assumes a bluish color. The serous instead of bilious discharges, and the cyanotic color of the skin, are, then, the diagnostic marks of cholera asphyxia. But, as the cyanosis does not appear until the advanced stage, the only remaining symptom, and the only *symptom* at all, which distinguishes epidemic from sporadic cholera *during the first stage*, is the *watery evacuations* of the former disease.

Serous diarrhœa, or *diarrhœa aquosa* of some authors, resembles cholera in a certain degree: that is to say, watery discharges accompany both affections. These form the characteristic symptom of serous diarrhœa; and when they are accompanied with vomiting, as sometimes happens, there is nothing in the symptoms of the attack to distinguish it from a mild one of epidemic cholera. I do not know that this form of diarrhœa has ever become epidemic.

Malignant cholera also bears a strong resemblance to acute poisoning by arsenic. "The vertigo, derangements of the senses, the great depression, epigastric distress, thirst, cramps, the general coldness, and suppression of the urine,—all of these symptoms are common to both morbid conditions." But *burning heat and constriction of the œsophagus*, and *violent pain* in the *abdomen*, are occasioned by arsenical poisoning, and not by cholera; and this form of poisoning never produces such stools as distinguish cholera.

TREATMENT.—In estimating the value of the treatment of cholera, a very important consideration presents itself on the threshold of the inquiry. Is the treatment of the premonitary diarrhœa to be considered as forming a part of the treatment of cholera? No doubt an affirmative answer to this question should be given. I have already pointed out the fact that in a great majority of cases diarrhœa constitutes the first and forming stage of the graver affection, and constitutes also the first evidence of the action of the cholera poison. The prevalence of diarrhœa during cholera epidemics, whether or not the season or the other circumstances be such as usually occasion diarrhœa, shows that in each case the bowel complaint proceeds from the same cause. In the English epidemic of 1849, when the mortality from cholera was 53,241, that from "diarrhœa" was 18,869. The enormous number destroyed by the latter disease clearly indicates that the cholera poison produced diarrhœa where it did not occasion the more malignant disease. The treatment, then, of the stage of diarrhœa is in reality the treatment of cholera. I may add, what is of vastly more value than this pathological conclusion, it is *the only stage of the disease in which treatment makes a sensible impression upon the mortality*.

When the disease comes on gradually, in the form of diarrhœa, it can nearly always be arrested by the usual remedies for bowel complaint. These may consist of opium either with stimulants or with astringents. The stimulants most generally used are the essential oils of cajeput, cloves, cinnamon, peppermint, etc., with which chloroform, ether, or Hoffmann's anodyne may be associated. Probably such agents are particularly indicated when the attack has been somewhat sudden. The same may be said of hot drinks which are given at the same time, and which should contain some alcoholic distilled liquor in moderation. The patient meanwhile should be kept warm, and if necessary wrapped in blankets, and an effort made to force and maintain a free perspiration. If such remedies do not speedily diminish the diarrhœa, they should be discontinued. Owing to the depressing influence of the epidemic poison, these means will be of little value unless the patient be kept perfectly at rest. He should lie in bed, and not rise at all,—not even, if possible, to obey a call of nature. As a general rule, astringents are more efficacious than stimulants in checking the premonitory diarrhœa. Chalk mixture, with tincture of catechu and a little laudanum, is sufficient if the symptoms are very mild, and particularly if the stools continue to be brownish. But if they assume the serous character, it is better to resort to acetate of lead and opium. By many it is preferred to combine *calomel* with these substances, in the pilular form. The proportion of opium should *never be* large, and least of all on the approach of the fully-developed stage of cholera; for then it tends to depress and paralyze, instead of stimulating, the functions. At the appropriate period, pills containing one grain of acetate of lead and a quarter grain of opium may be administered every hour.

In the second stage of cholera, with serous vomiting and purging, the treatment becomes more difficult; for the action of medicines must be very

slight when they remain but a short time in the stomach and are copiously diluted by its secretions. In reviewing the long catalogue of those which have been prescribed during this stage, I can scarcely find one which is even claimed to have been effectual. Bleeding has nothing but the fanciful notions of enthusiastic gentlemen to recommend it. Alcoholic stimulants, ammonia, narcotics, astringents, quinia, emetics, even, and purgatives, have had their advocates; but no successful results attest their value. On the contrary, no well-informed practitioner would now place the least dependence upon them.

Alkaline solutions,—muriate of soda and sesquicarbonate of soda,—warm, and largely diluted, have been injected into the *bowel*, with the effect of replenishing the exhausted vessels and restoring, for a time, warmth to the skin, force to the pulse, and animation to the countenance; while they relieved the cramps and dispelled the cyanotic color of the skin. Similar solutions have been injected into the *veins*, with still more striking and encouraging effects. But these phenomena were like those produced by galvanizing a corpse: a sudden and almost miraculous development of energy displayed the semblance of reviving life; but hardly had hope been conceived before it was doomed to be disappointed. The symptoms returned; and usually no second resurrection followed the persistent employment of the remedy.

A plan for the success of which a persistent claim has been set up by many respectable practitioners is the one which was proposed by Dr. Ayre, of Hull. It consists in giving one or two grains of calomel every five or ten minutes, and one or two drops of laudanum with the first few doses of the drug, and in perseveringly continuing the same dose, at the same intervals of time, until the symptoms of collapse become materially subdued. From that time it is not claimed to do good, and may, certainly, be injurious.

Of other internal remedies, those of a stimulating class, and particularly brandy and wine, would seem to be suggested by the general prostration and exhaustion and the coldness of the skin. They have, accordingly, been used very extensively; and the general result of experience is that they are *worse than useless*. They not only do not tend to arrest the discharges and the progressive coldness, but, on the contrary, they augment the vomiting and distress.

Everything, besides what has been mentioned, that appears to be of any service, is beneficial only by moderating some of the more troublesome symptoms of the attack. Ice is generally grateful to patients in impending or actual collapse. It relieves the burning thirst, and, in many cases, seems to favor reaction, while it appeases the feeling of intense heat in the abdomen. Iced water may, in like manner, be given repeatedly, but not in such large quantities as, by their bulk, to excite vomiting. Cold carbonated water is very grateful to many patients. Lime-water, with milk, may also be tried, as a means of affording nourishment and controlling, in some degree, the vomiting.

A very eminent physician and medical writer of London insists that cholera patients should have none but hot drinks, because their bodies are already so cold. Fortunately, nature's voice is more authoritative; and cholera patients clamor for cold drinks and swallow them greedily, in spite of the theoretical conclusion that they ought to prefer hot ones.

A great variety of external applications have been resorted to for the purpose of retaining the blood in the cutaneous vessels, of maintaining the warmth, relieving the spasms, allaying the vomiting and purging, etc. Of these, the most commonly employed belong to the class of rubefacients. Sinapisms are applied to the epigastrium, or to the whole abdomen. Frictions of the extremities with liniments containing turpentine, ammonia, cantharides, or tincture of capsicum, or simply with dry and coarse cloths, and even ligature of the thighs, are commonly resorted to. But I doubt much whether any means which agitate, disturb, and exhaust the patient are likely to be useful. The revulsive action of mustard, however, is not liable to the same objection, and should certainly not be neglected; and ligatures around the thighs may also be tried. It is a curious and interesting fact that *heat* applied to the skin, so far from alleviating the symptoms and restoring the circulation to the surface, is almost always ineffectual, except in relieving the spasms in a few cases. This is strikingly true of *warm baths*, either of water or of vapor. Their depressing effects are sometimes marked and unmistakable, and are much complained of by the patients. At the outset of the disease they seem to be more efficient.

On the other hand, *cold water*, in the form of douche or affusion, is of decided efficacy in some cases, and much more grateful than warm applications. The patient is directed to be laid upon the floor, while cold water is dashed over him; or to be seated in a tub, while the water is poured rapidly over his body. Immediately he is to be dried, and wrapped in blankets, and after an hour or two the operation may be renewed. Frictions of the skin with *ice* have also been productive of advantage. Still, it must be confessed that the results of the treatment by cold water do not authorize its *general* adoption.

If, under the use of any of the means which have been enumerated, it is found that reaction commences, it becomes necessary to temper the activity of the stimulant remedies, but not to desist entirely from their use. To do so prematurely would be to expose the patient to relapsing into the cold stage. But they must be more moderately used. For if this were not done, we might have to regret producing a violent reaction hardly less dangerous than the original attack.

When this does occur under a decidedly sthenic form, it may be necessary to employ moderate depletion by cups or leeches to the back of the neck, in order to calm the cerebral excitement or relieve the stupor. For the same purpose, and where depletion is judged to be improper, cold lotions and ice may be applied to the head. Blisters to the epigastrium may be directed, to calm the vomiting, if it should continue, or to relieve pain in the

stomach. If the urine is not duly secreted, mild diluent and mucilaginous drinks are useful. Some persons recommend, also, the weaker salines; but the risk of renewing the diarrhœa should make us cautious in their use. Care should be taken to prevent distention of the bladder, either by applying warm fomentations to the hypogastric region, or by introducing the catheter. The management of the *convalescence* from cholera requires attention. The most important precepts relate to the *diet* and *exercise*. Premature and undue exertion is most sedulously to be avoided, as well as all exposure to cold, and all attention to business that involves anxiety and fatigue. The diet should be mild, digestible, and nutritious, and not too abundant. If, as is usually the case, the stomach digests feebly, it must be aided by the stimulant operation of cayenne pepper or a little mustard used with the food, and by bitter vegetable infusions, or a little quinia, taken before the principal meals. If diarrhœa recurs, the food must for the time be rendered less stimulant, and a few doses of chalk mixture or of bismuth, with catechu or with a little opium, may be prescribed. When, on the other hand, constipation follows the attack, it may be removed by allowing sound and ripe fruit in its fresh state, or, what is safer, stewed fruit; or else a small dose of castor oil or of rhubarb may be directed.

Such are the causes, characters, and treatment of cholera. I have endeavored to impress upon you, as the capital point in the discussion, the extreme importance of meeting the disease at the very threshold, whenever it does not assault violently and suddenly. There you are its master, and may safely and easily drive it away. But once it has passed that boundary and taken possession, you will have a sharp struggle with it for the victory, and too often will be compelled to leave it master of the field.

ORIGINAL COMMUNICATIONS.

ANAL AND PERINEAL NEURALGIA.

BY S. WEIR MITCHELL, M.D.

I HAVE met with a set of cases during the last few years which, so far as I know, are undescribed in the books, and which are sometimes very unmanageable. The disorder in question is a painful affection of the anal and perineal regions, accompanied or not, as the case may be, with spasmodic contractions of the anal muscles and of those of the perineum. This form of neuralgic trouble is met with now and then in locomotor ataxia, but so far I have encountered it only in men, and even in them it is rather rare, since in the numerous examples of this disease which I have seen at my clinic, or in private practice, it has occurred but in two cases.

One of these was a man æt. 38, who had been ataxic for nearly twelve years, during all of which time he had had frequent attacks of terrible neuralgia in the legs and arms. About once a month he is seized with agonizing pain in the anus and perineum. The pain has no relation to the state of the bowels, and invariably comes on soon after he goes to bed, and usually when he is nearly asleep. After a half-hour of singular torment, the anal muscles begin to quiver, or, as he says, "to work," and soon after the attack passes off. More rarely it continues longer or recurs during the night. An application of ice gives relief after a time.

In the other example there is no spasm, but the pain is always nocturnal, and is apt to awaken him from sleep.

In all the remaining cases which I have seen, the attacks followed masturbation or sexual intercourse, and in one instance was apt to take place after nocturnal emissions.

A lad æt. 18, who consulted me last year, told me that he began to suffer two years before, while practising self-abuse very freely. The pain began in the anus, and there was no spasm. It followed masturbation immediately, but not after every instance, and was most common when the indulgence in this vice had been excessive. A few months before I saw him he had ceased to masturbate, but the pain still came on about once a week, and usually soon after he went to bed. Firm pressure on the anal region gave some relief; but he was not finally cured until after a long course of tonics and of sea-bathing. I have met with other cases of the same sequence, and in old men I have also seen a few examples in which there had been no sexual excitation to account for the pain.

It is much more rare after sexual intercourse; but in two of the most severe examples this relation existed. One of them was a young man, married some three months, who told me that after having sexually exhausted himself he had his first attack, which was very violent. The pain began in the anus and extended to the perineum, and there was but very slight spasm. After this it followed, occasionally, sexual intercourse, but was never again so severe. I enjoined greater temperance in the marital rites, and he suffered less and less until after an ague which the following spring affected his general health. Then there were frequent and severe paroxysms, sometimes without any previous indulgence. As his health improved, the local trouble got better, and has now ceased to annoy him.

I have seen but one case as severe, and this in an unmarried and continent bachelor æt. 35. The pain returned almost every night for two weeks, and was finally cured by suppositories of belladonna and opium. The spasms were lasting and very painful, and came on with the earliest of the deep-seated dull pains in the rectum. I have not met with any, save the ataxic cases, which resisted treatment for a length of time.

I have described in the *American Journal of the Medical Sciences* for July, 1873, a curious series of ataxic cases with neuralgia, in which permanent ease was obtained by absolute rest. In one of these there was slight but frequent anal neuralgia, which ceased with the relief of the pains in the limbs.

NOTES OF HOSPITAL PRACTICE.

CHILDREN'S HOSPITAL.

Reported by HENRY M. ESTRAZULAS, M.D.,
Resident Physician to the Children's Hospital of Philadelphia.

EXCISION OF THE KNEE IN ARTHRITIS.

ROBERT M., æt. 9, American, was admitted on the 24th of May, 1872.

The patient had been under surgical treatment at the "Union School," and presented himself to us with a swollen and hard knee, stiff, flexed to nearly a right angle, and covered with superficial ulcerations. The general health was good. The patient traces the origin of the disease to a fall upon an oyster-shell about a year ago. Pain, swelling, and stiffness followed, rendering the limb useless, and obliging the patient to go about on crutches.

When admitted to the hospital, the patient was put to bed, a straight splint applied, and the ulcers dressed.

When these were healed, the external ham-string was subcutaneously divided, the limb forcibly straightened and kept in position by a splint.

After this the tendency to retraction continued, and consequently the operation for excision was decided upon, though postponed till the summer should be over.

On the 5th of October the operation was performed by Dr. H. Lenox Hodge, as follows:

A straight incision was made beneath the patella, and was carried slightly curved towards the femur. The skin was dissected back, and the joint opened. The ligaments were found ulcerated, and pus burrowed underneath the patella and in front of the thigh.

The patella was removed, and then, flexing the limb, sections of the condyles were taken off obliquely below the epiphysis. The head of the tibia was next sawn from below upwards, the leg extended, and both ends of the bone brought together. The wound was dressed with sweet oil, the incision was closed with lead sutures, and the limb put on Packard's splint.

Little febrile movement followed; and a few days after, extension by weight was used. This was substituted by a posterior straight splint. The wound healed up well, and with no complications. Six weeks afterwards a pasteboard splint was applied, and the patient was allowed to go about on crutches. On March 14 the patient was discharged, in excellent health, and with the following results:

Patient walks very well, and without any assistance. Leg firm and united, and slightly flexed. Femur slightly prominent inwardly. Foot slightly everted while walking; it is normal while standing. Shortening, one inch and a half.

CASES OF OVARIOTOMY.

BY WASHINGTON L. ATLEE, M.D.,
Of Philadelphia.
Reported by J. EWING MEARS, M.D., of Philadelphia.

(Continued from page 629.)

CASE 239.—A solid malignant tumor of the right ovary, accompanied by ascites; incision about seven inches in length; death on the thirteenth day.—June 17, 1871, Mrs. J. A. O., of Wilmington, Delaware, consulted Dr. Atlee in reference to an abdominal tumor. She was 32 years old. Menstruation commenced at twelve years of age, continued regularly for three months, was then suspended for a long time, and, when it returned, occurred every three weeks until she was married. She was married in March, 1863, after which she became more regular. She had three children; the youngest was two years old. Lactation was free, and she did not menstruate while nursing. Latterly the menses had been scant and continued two weeks.

The patient first noticed the tumor on the 19th of April, 1871. Three weeks before Dr. Atlee saw her, Dr. Wales, of Wilmington, Delaware, examined her. On the 15th of June she was tapped by Drs. Wales and Bush, removing eighteen pints of amber-colored fluid, containing, after standing, a whitish sediment. The fluid coagulated by heat.

Although tapped only two days before Dr. Atlee saw her, she was as large as a woman at full period of utero-gestation. There was evidently an accumulation of fluid, to the amount of six or eight quarts, in the cavity of the peritoneum. The resonant sound existed over the highest point of the abdomen in all positions of the body. A tumor could readily be detected immersed within the fluid. It was very movable, slightly uneven, and felt like a compact multilocular ovarian tumor. The uterus was central, movable, and non-adherent to the tumor, as both could be rubbed on each other and moved independently of one another. The pelvis was free from hard deposits, and did not indicate the presence of malignant disease. The lower portion of the tumor could be felt in the superior strait of the pelvis, anterior to the fundus uteri, and communicated to the hand a sensation resembling that of a uterine cauliflower excrescence. The tumor was freely movable, could be pushed high in the abdomen, and to the opposite side. An examination by the speculum revealed granular inflammation of the os uteri.

The patient considered herself pregnant; but Dr. Atlee was satisfied that she was not.

The diagnosis was a compact multilocular tumor of the right ovary, with peritoneal effusion.

June 26, 1871, Dr. Atlee removed the tumor, assisted by Drs. Wales, Bush, Kane, Johnson, and Grimshaw.

The tumor was attached to the right side of the uterus, and kidney-shaped. The pedicle was broad and dense, and was attached to the concave surface of the tumor. It was secured in ¾-inch space of Atlee's clamp.

The case terminated fatally on the thirteenth day. No autopsy. Dr. Wales wrote, "I am rather inclined to the opinion that the operation for the removal of the tumor was successful; but the diseased action of the body causing the dropsy still continued, and caused her death."

Dr. Mears made an examination of the tumor, and described it as "a specimen of scirrhus or fibro-carcinoma of the ovary."

Case 240.—Unilocular ovarian cyst; tapped three times; parietal and omental adhesion; incision about three inches long; recovery.

August 9, 1871, Dr. Atlee visited Mrs. E. H., at Pittsburg, for the purpose of performing ovariotomy. She was 40 years old, and first menstruated when very young; was always regular,—discharge lasting one week. She was married at the age of thirty-one; had four children, the first parturition being difficult and followed by metritis and puerperal peritonitis. She nursed her children one year; had good lactation, and her menses returned one month after child-bed and continued regularly while nursing. Her youngest child was about sixteen months old. With the exception of her present disease, she has always enjoyed good health. She has recently become emaciated.

She first noticed the tumor in February, 1868, at the birth of her third child. Her labor was superintended by Dr. Landis, of Hollidaysburg, and after the birth of the child the abdomen remained so large that it was at first supposed that another child would follow. The

size of the abdomen afterwards did not seem to increase, and she in due time became pregnant again. During gestation the motions of the child were felt in the lower central part of the abdomen. She was confined with this, the fourth, child in April, 1870. Five weeks after its birth she was tapped by Dr. James King, of Pittsburg, who removed twenty-six pints of clear fluid, containing masses of lymph. She was tapped twice afterwards, the last time about two months before Dr. Atlee saw her, when the fluid was more milky in color and contained a larger quantity of masses of lymph. She was menstruating at the time of Dr. Atlee's visit.

The abdomen was larger than that of a woman at full period. It was uniform in shape, with rather greater prominence over the right side. It was smooth and elastic over the whole surface, excepting over a point in the left side. Fluctuation was distinct. The xiphoid cartilage was elevated to an angle of forty-five degrees. The uterus was central and movable. The pelvis was free. The sound entered only one inch.

Diagnosis.—Unilocular ovarian cyst of the right side, with some deposit in its left wall.

The following gentlemen assisted at the operation for the removal of the cyst: Drs. James King, Bruce, Mowrey, Gallaher, Pollock, Coffey, C. B. King, Sutton, Le Moyne, and Messrs. Rea and Estep.

About six or eight ounces of blood were lost during the operation. The uterus was enlarged; the left ovary was healthy, having a corpus luteum quite apparent. The tumor consisted of the right ovary, was unilocular, and had in its left wall some secondary deposits.

The patient recovered.

Case 241.—Multilocular ovarian tumor; most extensive visceral and parietal adhesions; incision five inches in length; death in thirty-two hours; autopsy.

August 3, 1871, Mrs. W. H. B., of Port Gibson, Mississippi, came to Philadelphia to consult Dr. Atlee in reference to an abdominal tumor. She was 36 years old, and had first menstruated at twelve or thirteen years of age. She was tolerably regular. Occasionally she had attacks of chills and fever, at which time the menses were irregular. She always had dysmenorrhœa. She was married at the age of nineteen, had one child at the age of twenty-one, which lived nine months.

She first noticed a tumor, as large as the fist, in the right side, in the fall of 1866. It was hard, and slightly movable, and continued regularly to increase in size. At that time her weight was two hundred and four pounds, being a very large and fleshy woman. In 1867 her physician, Dr. Thomas, sent her to New Orleans to consult Dr. Stone. On her return Dr. Russel took charge of the case, and finally directed her to consult Dr. Atlee.

The following is a report of the patient's condition: She is tall, and very much emaciated and feeble, with a pulse over 100. The abdomen is very large and prominent, and most developed below the umbilicus, so as to be somewhat pendulent. There is resonance in the epigastric and right hypochondriac regions, and dulness elsewhere. The tumor is decidedly multilocular; the cysts generally small, with some very hard deposits, particularly in a line with the left linea semilunaris. The accumulation of ascitic fluid exists in the hypogastric region. The superior strait of the pelvis is impacted by the mass. The uterus, which had formerly been in a state of procidentia, is elevated above the symphysis pubis. The os can just be reached, and is singularly malformed, representing two long nipples, with the entrance between them. The sound enters two and a half inches, going towards the left groin into a small mass. This mass, before menstruation, enlarges to the size of an egg, and again diminishes as the discharge occurs.

She measures round the waist thirty-four inches; round the umbilicus forty-six inches; from sternum to umbilicus thirteen inches, to pubes twenty-seven, and between the two ilia twenty-five inches.

Diagnosis.—Multilocular tumor of the right ovary. Prognosis, unfavorable.

August 12, 1871.—The following gentlemen assisted in the operation: Drs. Drysdale, Mears, Keen, Hoffman, W. Lemuel Atlee, Rex, and Barr.

During the operation the patient became very weak, and required stimulation.

Death in thirty-two hours, from shock and hemorrhage, as ascertained by autopsy.

This case belongs clearly to the second class of desperate cases.

TRANSLATIONS.

THE PHYSIOLOGICAL ACTION OF PROPYLAMINE.

Read by M. Laborde before La Société de Biologie. Translated from the *Gazette Médicale*, June 7, 1873,

BY JEAN PAUL BONSIEUR, M.D.

I HAVE the honor to submit to the Society the results of a series of experiments which I have pursued for some time to determine the physiological action of propylamine.

This drug, in spite of its disagreeable odor, is now very much in fashion. Its therapeutic employment is not new, it having been used in Russia almost as a panacea. It has recently been brought into notice in this country by Dujardin-Beaumetz. Already numerous clinical experiments have been made on man until other evidence seems unnecessary; but therapeutic tests are always more or less empirical, and should invariably be preceded by a knowledge of the physiological and toxic action of the drug. *Primo non nocere.*

The only acquisitions, up to the present, relative to this subject, were as follows: Some observations of M. Guibert on himself, who considered this substance to be a slight excitant of the skin and mucous membranes, and an hyposthenic of the arterial system. With Professor Coze and Dr. Fargier-Lagrange, it diminished the quantity of urine, lowered the activity of the circulation and temperature, and exerted a sedative action on the nervous system.

According to Dr. G. Namias, it augmented diuresis, diminished the number of pulsations, lowered the temperature and arterial tension. The experiments of M. Rabuteau, made with chlorhydrate of propylamine, seemed to demonstrate that this agent immediately arrested the action of the heart, as occurs under the influence of one of the so-called cardiac or muscular poisons. (See thesis of Bourdet, Paris, April 25, 1873.) The substance called propylamine is not a fixed composition, always of the same identity. Without entering into its chemical composition, I will state that I have used for my experiments both the impure drug and also trimethylamine. The experiments were made on mammals (dogs and rabbits) and frogs; the latter animals answer extremely well to show the action of this agent. With the mammals the drug was exhibited by the stomach, and by subcutaneous injection; with the reptiles, however, the inter-digital membrane was made the absorbing medium, by fixing the animal vertically in a flask and allowing the feet to be immersed in the fluid below; by these means the process of absorption is maintained free from interruption.

When a gramme and a half or two grammes were injected beneath the skin in the groin of a young and vigorous rabbit, in the course of three-quarters of an hour, or an hour, the animal became restless, its fur

rough, a general trembling ensued, it started at the least touch, the respiration was notably accelerated, the cardiac action became more frequent; later it became distressed, gathering itself up in a corner, and walked with great difficulty when excited, the irritation causing lively reflex action, with shaking and trembling. The respiration became more and more frequent, the cardiac action more precipitated, but its impulsion appeared weakened; finally the animal fell into collapse, with signs of asphyxia, and died. On autopsy there was found a discoloration of some extent of the abdominal integument about the point of injection, with a gangrenous condition, accompanied by emphysema. The examination of the viscera showed patches of pulmonary congestion, points of vesicular emphysema, and some spots of subpleural ecchymosis. The heart contained large black clots in both cavities. The kidneys showed a state of congestion; the bladder was filled with urine, non-albuminous, with an ammoniacal odor.

Under these experimental conditions two phases were displayed: the one a period of trembling, characterized by convulsive succussion, agitation, increasing to excito-motor action, with hyperæsthesia, and an augmentation of the cardiac and respiratory movements; the other, a period of depression, of collapse, characterized by a certain degree of motor paresis, and terminating in asphyxia. The experiments with frogs confirmed the first results; but they further determined the state of the muscular and nervous systems. We proceeded, as already indicated, to place the inter-digital membrane of a vivacious frog in a bath of trimethylamine; after absorption had proceeded for half or three-quarters of an hour a lively agitation occurred, soon followed by slight convulsive starts, fibrillous twitching of the muscles of the feet, jumping at the least noise or disturbance of the flask, dilatation of the pupils, increase in the movements of respiratory deglutition, and also of the cardiac pulsations. As the influence of the drug asserted itself, the agitation ceased, the reflex excitability grew less, the muscular action disappeared. At the same time a progressive decrease of the cardiac movements occurred: from 64 to 68 beats to the minute at the commencement of the experiment, they fell to 34, 20, 12, and, finally, were suspended; the animal succumbing in one hour, one hour and a half, sometimes two hours, after the exhibition of the drug. In the course of the experiments the sciatic nerve was laid bare, in order to examine the state of the motor excitability, which is so notably increased, as is also the muscular contractility, during the stage of excitement. Both persist to the last, but progressively diminish in power. The inter-digital membrane presented a very anæmic appearance.

The experiments on the reptiles truly demonstrate, as in the mammals, the two phases in the action of this drug,—the phase of excitement, characterized by exaltation of the physiological properties of the nervous and muscular systems, and the phase of collapse, truly toxic, marked by the depression and cessation of the functions which belong to the same systems.

It only remained to determine which of these systems was first affected by the drug. The whole of the previous experiments tended to demonstrate that the nervous system was first brought under its influence, as shown by the hyperæsthesia, convulsive trembling, and the augmentation of the excito-motor phenomena; the results of the following experiments definitively settle the question.

On section of the dorso-lumbar nerves in a frog under the action of trimethylamine, destroying communication between the cord and posterior extremities, the convulsions do not occur in the latter, yet the muscular contractility remains intact. If the vessels of these parts be ligated, the abnormal excito-motor phenomena take place coincident with those of the other limbs.

The following experiments show clearly that the drug acted directly neither on cardiac nor muscular contractility. Four grammes of tremethylamine dissolved in twenty grammes of water were injected into the cardiac extremity of the crural vein of a young dog, vigorous and of ordinary size. Immediately general tetanic rigors occurred, with diaphragmatic spasm, momentary arrest of the respiration, and accelerated cardiac action; after a long inspiration the animal recovered, and respiration became regular; but soon an active excitement ensued, with violent struggles, and the ejection of abundant bile from the mouth; the limbs were shaken by convulsive action, which gradually moderated. After being released it soon became immovable, lying flat on the side. The following day it showed complete recovery. We then subjected it to the following experiment: Section of both pneumogastric nerves with artificial respiration; after some repose five grammes of trimethylamine diluted in twenty-five grammes of water were injected into the cardiac end of the crural vein; during the injection, which was made very slowly, the heart showed an appreciable modification both in frequency and in rhythm. The injection renewed with four grammes of the drug caused only a slight increase in the pulsations. On autopsy the surface of the endocardium showed considerable irritation, with numerous ecchymoses.

To complete these researches, we administered the drug, to dogs, every day for a considerable time, by the œsophageal tube, in doses progressively increased. A dose of two grammes to two and a half given to a dog of medium size will produce almost instantaneous vomiting. In less doses, anxiety, immobility, a condition of distress, general muscular trembling, accelerated action of the heart, distaste of food, marked emaciation; sanguinolent urine is voided at the end of six days, charged with biliary and coloring matters in abundance; a great susceptibility, hyperæsthesia, increase of reflex excitability. Such are the chief phenomena under these conditions.

Chronic Poisoning with Chloral Hydrate.—In the June number of *The Practitioner* there is a paper translated by the editor of that journal from the writings of Dr. Ludwig Kern, detailing a series of morbid phenomena which appeared in the course of a continuous employment of chloral. The most prominent symptoms were extensive cutaneous erythemas, and pustular or papular exanthemata. The vessels of the head and face were first dilated; but in pronounced cases this condition extended downwards, following by preference the course of the larger nerve-trunks. Conjunctivitis, inflammations of the mucous membranes, and congestions in various parts of the body were also noticed. A very important symptom was an interference with respiration, sometimes slight and sometimes amounting to actual dyspnœa, endangering life. The effects of chloral upon the skin and mucous membranes, and the dypsnœa produced by it, may all be explained by the assumption that it operates upon the vaso-motor centre and the medulla oblongata, and that its paralyzing influence extends thence to the peripheral branches of the affected nerves.

There was another class of cases in which both the quality of the symptoms and their greater or less extension in the organism indicated a distinct change in the composition of the blood. They were attended with petechiæ, subcutaneous ecchymoses, colliquative diarrhœa, bronchitis, diffuse abscesses, high and continued fever, and all the symptoms of profound blood-poisoning.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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SATURDAY, JULY 19, 1873.

EDITORIAL.

CHOLERA.

OUR readers, no doubt, will remember that we failed in our last issue to lay before them any information of much interest concerning the epidemic of cholera prevailing in the West. Owing to the kindness of our correspondent, Dr. Ramsey, of Knoxville, Tennessee, and to the arrival of some of our Western exchanges, we can to-day, in a measure, fill the gap in our last issue.

About two months ago, cases of what bore a strong resemblance to malignant cholera, in symptoms and termination, were reported in New Orleans, —it is said, shortly after the arrival of a vessel from Odessa, where the disease is prevailing. A steamer leaving New Orleans for Cincinnati lost a number of deck-hands or passengers on its way; and not long afterwards cases of the disease made their apperance at Memphis, and at points on the river below.

Following the lines of travel, the disease continued to spread, passing up the river to Paducah and Cincinnati, and along the railroads to Nashville, Gallatin, Murfreesboro', and finally into Eastern Tennessee. Nashville has, as in all previous epidemics, suffered very severely. On June 20 seventy-three deaths were reported there from cholera, and the daily mortality ranged from forty to seventy during the week from the 15th to the 22d. Probably, however, the little town of Greeneville, on the main line of railroad, in the extreme eastern part of Tennessee, has been the most severely punished of any place as yet,—punished for the most reckless disregard of the first principles of sanitary science, if not of those of common decency.

By death and fright the population is said to have been reduced in two weeks from twelve hundred to three hundred. By the 1st of July all business whatever had stopped, except a very limited traffic in food and attention upon the sick and the burying of the dead.

As almost all of the well-to-do had fled, and as no work was to be had, great destitution prevailed; and even famine might have been added to the miseries of the poor, had not the surrounding towns answered their cries for help. The cause of this great malignancy is not hard to discover, and is clearly shown in the following extract from Dr. F. A. Ramsey's official report to the mayor of Knoxville:

"More than a quarter of a century ago, an immense pit was dug in the very centre of the town, and a cloaca erected over it with capacity sufficient for the accommodation of the entire community during all these years. A very short time before the erupting of the disease by which the town has been depopulated, an *energetic* citizen ingenuously emptied this pit, and had the contents wagoned through the town and spread upon the face of a hill on the northwest verge of the corporation, the contents from the pit spreading over a very considerable surface of wet ground, exposed for several days to a fiery sun. Then there occurred the heaviest rain that any citizen of Greeneville had ever witnessed. It was the eastern side or slope of the hill on which the deposit was made; and, of course, the wash of the hill was into and through the town. The heavy wash of this rain carried all the surface soil from the hill, and, as the water covered an area equal to three-fourths of the corporate extent of the town, the *débris* from the pit which it held, fairly divided, if not dissolved, was distributed to just so much of the surface of the ground. But this is not all: the *pile* is yet incomplete! The town of Greeneville is a town of gardens, each garden-owner indulging an emulation as to who would have the best grapes,—all the gardens having grape-arbors of less or very large extent. All the inhabitants of the town believed that the fæcal deposit made by men, women, and children is of all things the best to give vigor to the grape-vine, fulness to the grape, and luscious delicateness to the flavor and mellowness to the odor of the juice of the fruit. Every cloaca in the town surrendered its contents, and at the root of each main stem was buried, in wet earth, a pile of human excrement. . . . In the overflow several wells were contaminated, the waters of which, of course, are poisonous now, but outside of the overflow there is no reason to believe the water of the town to be otherwise than pure. The cloacæ of the town are without pits, and are all built upon a natural or artificial drain or sewer, communicating with a creek that passes from a northwest point, running east and then south through and on the edge of the town, and soon entering and pass-

ing through farms more or less contiguous to the town. The stock on these farms drink the water of this stream from Greeneville; and as far distant as five miles from town, on this stream, cases of the disease have occurred. In no instance of occurrence of the disease in Greene county has it been difficult to demonstrate a direct or indirect contact with Greeneville atmosphere and Greeneville water, contaminated by human fæcal matter."

Wherever the disease has prevailed, the colored population have suffered more than the white, largely, no doubt, because they through poverty frequent the more unhealthy neighborhoods and live in the greater squalor and filth.

Thus, in Nashville on one day forty-nine out of seventy-three deaths were of colored persons. Even when the mortality exceeded seventy a day, the city proper was comparatively healthy; the epidemic prevailing in the low bottoms along the river.

A very singular attempt has been made by some of the most talented physicians of the infected localities to disprove that the disease was Asiatic cholera, and it has been over and over affirmed that it was simply "sporadic cholera." As to the term "Asiatic," we do not stickle for that; call it Mississippi cholera if you please; but we do insist that a disease which spreads over hundreds of miles of country, which depopulates villages and strikes terror into cities, is *epidemic:* if it is simply sporadic, we want to know under what circumstances a disease is epidemic.

Again, we still hold to the belief that two diseases which are identical in mode of spreading, in symptoms, in results, or, in other words, diseases whose natural history is the same, are one and the same thing. The present epidemic has passed along routes of travel, has been propagated by water contaminated with fæcal matter, has attacked most freely those living in low and crowded portions of cities, has produced in its victims all the symptoms and results of true cholera, and is, therefore, in our opinion, nothing else than cholera.

REPORT OF THE MUNICIPAL HOSPITAL.

JUSTLY to give praise is as to give alms: it blesseth him that giveth, as him that receiveth.

It is a luxury—and, we may say, in these later times a rare luxury—to be able to praise anything connected with our city government; but it appears that our Board of Health have availed themselves of the opportunity which they to some extent created for adding to our knowledge of the smallpox,—2377 cases of smallpox, genuine and modified, 743 preventable deaths. Well, it strikes us that this is a pretty dear price to pay for even the excellent report of Dr. William M. Welch, which lies on the table before us. Smallpox is at best a disease of low degree, though of most ancient pedigree,—a pedigree so ancient, so investigated, a face so familiar, a habit so well known, that even Dr. Welch is not able to bring forward anything actually new out of his experience. We notice, however, several things of interest. One is a most gratifying exhibit of the advance of the art of diagnosis among us. Out of over two thousand cases sent to the hospital as smallpox, there were only four cases of debauch, one case of cerebro-spinal meningitis, one of pneumonia, one of pleurisy, one of rheumatism, one of scarlet fever, and one of typhoid fever; and, as we are told that these cases were all or almost all well advanced in their respective diseases, the result is still more gratifying to our professional pride.

As showing the value of vaccination, we note that not a single person connected with the hospital, who had been revaccinated, contracted the disease; while, on the other hand, some three or four of the nurses, who had been affected by smallpox previously, and were not vaccinated, took the disease a second time.

The following extract in regard to vaccination seems worth copying:

"A fanciful opinion was once held by eminent authors that if a pregnant female undergoes smallpox without aborting, the infant, which was supposed to have passed through the disease at the same time, would remain through life unsusceptible to either smallpox or vaccination. We have found, however, that children born under these circumstances respond as readily to vaccination as any other children; so, likewise, have we seen them contract smallpox."

A curious case showing the insensibility to pain sometimes caused by delirium occurred in the hospital during the epidemic. A female, cunningly embracing an opportune moment, ran quickly, and sat down on the open fire-grate. There she remained, apparently insensible to pain, for while her clothing was burning around her, and her flesh charring, she was violently resisting the efforts of the nurse to extricate her.

In conclusion, we express our opinion that the pamphlet of Dr. Welch is worthy of preservation as an excellent and truthful report of a most disgraceful epidemic. We hold that as in war success is the great criterion of the ability, or at least of the value to the state, of a general, so is success in the preservation of a city from epidemics the touchstone to decide the efficiency or inefficiency of a Board of Health; and we think that ours has been tried and found wanting.

WE give place with great pleasure in our columns to a letter concerning the editorial which appeared in our issue for June 27 upon the vacancy in the chair of anatomy at the Jefferson Medical College.

It is possible that if our *composite* friend will carefully re-read our article he will find that our opinions are not so far apart as he imagines. To elect an inferior man to a professorship in a medical college because he is the son of a professor is a gross outrage; but it is certainly no less a gross outrage to reject a superior man because he is the son of a professor. In Philadelphia, of recent years, it has seemed to be a valid objection against a man that he is a relative to a professor, and, while it would be easy to point to instances of this, not once, to our knowledge, has kinship to a teacher in the school aided in the election of a professor.

As matters stand, certainly there is no ground for accusing our electing boards of nepotism.

What the views of the mass of the profession may be we have no better means of determining than has our correspondent; but we certainly still believe the opinions expressed in our editorial are just and true.

The case of Dr. Alexander Simpson illustrates very forcibly one of the points which we endeavored to make in our former editorial. From all accounts, in that instance it became the duty of the medical press to speak out plainly in regard to the matter. In the canvass which has just suffered a miscarriage, certainly there was no such inequality among the candidates. If the matter had been left to a vote of the alumni, or even of the professors, so far as our information goes, no man could have predicted what the result would be.

If under such circumstances the medical press attempt to direct the various currents, if in every canvass each individual journal is to have its own candidate, the whole matter takes on a partisan appearance, and when the right time comes for a word to be spoken with authority, even the united voice of the medical press is but as some one babbling by the wayside.

LEADING ARTICLES.

DISINFECTANTS.

(Concluded from p. 655.)

IF the chloride of calcium spoken of by Eckstein be as efficient as he claims it to be, it ought to be one of the most commonly used disinfectants. So far as I have been able to learn, only the pure form of it is in the market, and this commands a comparatively high price for other than sanitary uses.

Enormous quantities of it sufficiently pure for disinfecting purposes are said to be thown away, as a waste product, in all alkali-works; and its utilization would be a great benefit. E. C. C. Stanford, Esq., of England, in 1872, proposed its use, establishing its value by an elaborate series of experiments proving that of all the chlorides it is the most powerful for its price, and is decidedly superior to "*chloralum*." He recommends it in the form of solution containing twenty-five per cent. of the solid salt, and acidified with twelve per cent. of hydrochloric acid. This increases its power, and is a harmless addition. As it does not make a black precipitate with sulphuretted hydrogen, the chloride of calcium is better than copperas for ordinary household use. The solution of Mr. Stanford appears to be a most excellent form of it for many purposes, but for others the solid form is best. Thus, there is always great difficulty in keeping urinals in houses free from offensive odor: this is said to be entirely obviated by putting a lump of chloride of calcium in the urinal; it lasts a long time, as it dissolves very gradually, and keeps the urinal perfectly free from odor.

Whatever disinfectant, however, be used, it must never be allowed to take the place of *cleanliness*. Large accumulations of organic matter practically never are, if they indeed can be, thoroughly disinfected.

As has already been stated, it is practically impossible to disinfect the atmosphere; and therefore it becomes the more important to destroy at once disease-germs wherever they exist in a solid or a liquid. The practical deduction from this is, that in a disease like cholera, in which the poisonous matter is chiefly—or at least is believed to be—emitted with the stools, the latter should be attacked the instant they leave the body. No patient suffering from cholera should be allowed under any pretence to use a water-closet or privy, but always a closed receptacle in which some material capable of destroying the disease-germs has been previously placed. In this way the *materies morbi* is reached as soon as possible after leaving the body, and has not nearly so great chance of doing harm as when the stool is only disinfected after the patient has arisen from it.

The question next comes up for consideration as to what substance shall be employed for destroying the germs already existent in the discharges. Here especially has the prior place been claimed for carbolic acid. Granting, it is said, that it is not a disinfectant, it is a prince among antiseptics. The most convenient known test of the activity of an antiseptic—*i.e.* a destroyer of disease-germs—is believed to be its power of killing bacteria and similar low forms of vegetable life. Now, the experiments of the great advocate for the use of carbolic acid (Dr. Sansom) have shown that a large number of substances are more active in destroying microscopic organisms than is carbolic acid, and that the corrosive sublimate is about eight times as strong, one part of the mercurial salt in 6000 parts of water sufficing to kill organic germs, whilst one part of carbolic acid in 750 parts of water is required for the same purpose.

When it is further borne in mind that the odor of carbolic acid is most penetrating, permanent, and offensive, that it does not readily dissolve in the various liquids desired to be disinfected, and that it is so terribly poisonous as to have no advantage on such score over the corrosive sublimate, I think it may be well affirmed that when small quantities of the disinfectant are needed, as in cholera cases occurring in private practice, the bichloride is more available than carbolic acid. Moreover, corrosive sublimate actually alters organic compounds, parting with a portion of its chlorine, and being reduced to calomel.

I think, therefore, that for destroying the germs of disease, as in the stools of cholera, corrosive sublimate is preferable to carbolic acid, and is, indeed, on the whole, the best known substance for practical use.

Corrosive sublimate dissolved in Labarraque's solution would, I believe, make the best disinfectant for the purposes now being spoken of,—certainly far more efficacious than carbolic acid, much more manageable, no more poisonous, and cheaper.

It is, however, a question whether copperas, in saturated solution or in powder, freely used, is not, after all, the best material for rendering choleraic discharges harmless. The salt is so cheap that the excreta might be saturated with it at a scarcely appreciable cost, and, so used, it would certainly kill any living germs.

In conclusion, let us sum up the points which it has been attempted to make in this article:

1. It is useless to attempt to disinfect the atmosphere; and therefore great care should be exercised to destroy, as far as possible, the poison-germs so soon as they leave the body.

2. Copperas is the most available disinfectant for ordinary purposes; in certain cases (chiefly for urinals) chloride of calcium is very good.

3. Carbolic acid is not disinfectant, but antiseptic, and, on account of its odor, is very disagreeable; further, it is not so efficient as some other substances for the purpose of killing disease-germs, and for the purifying of cholera discharges either a mixture of corrosive sublimate and Labarraque's solution, or copperas in solution or powder, is to be preferred.

There are in the market various patent or proprietary disinfectants, concerning which I have said nothing, for several reasons. In the first place, I am not able to perceive exactly why a physician should use a patent disinfectant, when he utterly scouts any other proprietary medicine. In the second place, I have not yet seen any proof that these substances are superior to our ordinary disinfectants, but much evidence to the contrary.

H. C. W., Jr.

Curative Action of Ipecacuanha in Diarrhœa.—Dr. Thorowgood, before the Clinical Society of London (*Lancet*, May 24), read notes of two cases of persistent and alarming diarrhœa which yielded promptly to doses of from two to five grains of powdered ipecacuanha thrice daily, after having resisted all ordinary treatment.

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times:

Dear Sir:—The issue of the *Philadelphia Medical Times* for June 27 contains an editorial, the gist of which, the writer thinks, will not coincide with the convictions of the majority of medical men. The article, the exciting cause of which was an editorial in the *Medical and Surgical Reporter*, seems to premise that upon the occasion of an election to a professorial chair in a medical or scientific institution, the fact of a candidate being a son or close relative of the retiring occupant should carry considerable weight and influence with it.

Now, hereditary succession may do for the so-called "royal families" (royal families are notorious for mediocrity), but we hold that it is vastly out of place in those cases where the highest order of technical and professional erudition is demanded; and, admittedly, such is required of those who compose our faculties, the medical especially.

Professional calibre and attainments should be the inexorable and only measure of fitness of candidates for the high offices; and the object of this brief note is simply to call attention to this matter, and to protest against a species of family wire-working which has upon more than one occasion created dissatisfaction and enmity among medical men.

These remarks are to be taken in their general applicability, and have no special reference to the contest at the Jefferson College: in fact, the writer is not aware of any particulars regarding the vacancy at this institution, and the candidates and their prospects are equally unknown to him.

We all remember the commotion that was raised when Alexander Simpson stepped into the shoes of Sir James Y. Simpson. Let us see to it that no occasion arises with us for such a venting of spleen.

"Eupatorium Perfoliatum."

PROCEEDINGS OF SOCIETIES.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

June 2, 1873.

Director W. S. W. Ruschenberger, M.D., in the chair.

Present,—Prof. J. Carson, and Drs. I. Norris, McQuillen, J. G. Hunt, Buckingham, B. H. Coates, Corlies, Holman, and Richardson.

Dr. J. G. Hunt made a verbal communication upon the histological appearances of the omentum, and exhibited some beautifully prepared specimens, stating, however, that he had found them some of the most difficult objects to manipulate he had ever undertaken.

Dr. Hunt also displayed a specimen of a stellate hair, or scale, from an ivy leaf sent to him in some vomited matter from one of our large hospitals, as a great

curiosity resembling the devil-fish described by Victor Hugo in his "Toilers of the Sea."

Dr. J. G. RICHARDSON narrated, as *apropos* to the case brought forward by Dr. Hunt, an occurrence which took place in his office that same afternoon, during a lesson he was giving a private student on the examination of blood. One of these stellate hairs managed to insinuate itself into a small drop of the circulating fluid, during an exposure of not more than three seconds elapsing between the puncture of the finger and the application of a covering glass, and the pupil very naturally remarked that had he found such an object under similar circumstances in his own experiments, he would have thought some wonderful discovery had dawned upon him.

Dr. HUNT said that the example related by the Secretary afforded a useful warning in regard to the caution with which we should receive the statements of such observers as Dr. Charlton Bastian, whose so-called investigations on the "Beginnings of Life" had been brought so prominently before the public. These momentous researches required a special and peculiar skill in manipulation, of which few were capable, and the case referred to by Dr. Richardson proved how easy it was for extraneous matters to gain access to fluids whilst being prepared for examination, in spite of all ordinary precautions. To him it seemed far more probable that the low organisms described by Dr. Bastian found their way into the fluids tested by some similar accident, than that they had been spontaneously generated after their germs were destroyed by a boiling heat.

Dr. RICHARDSON did not wish to appear as an apologist for Dr. Bastian, but would like, for the sake of even-handed justice, to call Dr. Hunt's attention to the fact that in many of Bastian's, Wyman's, and Pouchet's ingenious experiments, a whitish flocculent film appeared within flasks (hermetically sealed at 212° Fahr. and afterwards exposed, with their entire contents, to an equal or sometimes even a higher temperature, in a digester) *before any opening had been made in them*, and therefore without any possibility of their enclosed fluid being contaminated by bodies floating in the surrounding atmosphere. Subsequently, when the necks of the flasks were broken off, *visible particles* of this whitish pellicle were removed and examined beneath the microscope, where it seemed to him no very wonderful skill in manipulation was required to avoid error in deciding whether they were composed of mycelial threads and spores of fungi.

SELECTIONS.

BUNIONS.

DR. CHARLES H. LOTHROP writes as follows (*Boston Medical and Surgical Journal*, June 26, 1873): "In the explanation of my mode of treatment, and the apparatus used, it is not necessary to speak of the various pathological changes which have taken place before the bunion has come under the observation of the surgeon. It is sufficient to say that, in the natural formation, the inner line of the foot and great toe is nearly straight, while there is an interval of more or less extent between each of the toes. Now, in this affection, the toe has left the place of its nativity and is found sojourning in a foreign locality. The internal lateral ligament and abductor pollicis pedis muscle have become lengthened, while the external lateral ligament and adductor pollicis pedis muscle have become shortened. The flexors and extensors of the toe have also, to a great extent, become adductors, and the result of this abnormal condition is that, in either flexion or extension, there is an effort to a greater displacement and consequently to a greater distortion. Sometimes this takes place to such an extent that the toe may be seen completely overriding its fellow. At such times there is a very conspicuous displacement of the metatarsal bone inwards, while the proximal phalanx is pressed outward, producing an angle at the metatarso-phalangeal articulation, which separates to some extent the internal margin of the articular surface.

"A wide boot or shoe in the treatment of bunion is unquestionably necessary, but that alone will not elongate that already shortened condition of ligament and muscle; something more is requisite.

"The recommendation of Mr. Erichsen, the division of the tendon and the application of an under splint, is not practicable; besides, there is danger of inflammation, and, finally, of stiffening of the joint. The compulsory apparatus of Mr. Key, by means of a partition in the stocking, like the finger of a glove, and a partition fixed in the sole of the shoe, could not be worn for any length of time without producing pain, inflammation, excoriation, etc. The apparatus of Mr. Bigg has, as I have been informed by a manufacturer of surgical instruments in Philadelphia, proved a failure, and the manufacture of it has been stopped. Displacement of the toe is the obstacle to overcome. This cannot be done by violence without great suffering and distress to the patient, but can be surely and safely accomplished by gentle means. It is necessary that a large boot, shoe, or slipper, made of cloth or other light material, be worn during treatment. A cot, made of muslin or some soft firm fabric, is placed upon the great toe; one or more strips of adhesive plaster are placed upon and around the heel, the free extremities of which extend towards the free end of the cot upon the toe. The ends of the plaster and cot are then connected by means of a strong rubber ribbon, and the *persuasion* of the toe to return to its natural position commences.

"It is sometimes necessary to use other strips of plaster to retain the apparatus in position, one about the instep and one about the ball of the foot, while another is sometimes bound about the great toe and attached to the second, in order to keep each in proper position.

"The contractile power of the external ligament and adductor pollicis pedis muscle is overcome without injury. If they do not readily yield, then they may be partially divided by the operation of tenotomy without any dangerous consequences. The danger of inflammation of the joint, resulting from the violent replacing of the toe, is avoided. The antagonistic power of the internal lateral ligament and abductor pollicis pedis muscle is once more regained. The flexor and extensor muscles perform only their legitimate functions. The horrible distortion disappears, and your patient thanks you, with a grateful consciousness that you are, like Luke of old, 'the beloved physician.'"

REVIEWS AND BOOK NOTICES.

COLUMBIA HOSPITAL FOR WOMEN. REPORT BY J. H. THOMPSON, WITH APPENDIX.

The Columbia Hospital was established in March, 1866. We have never seen it; we confess, with a blush, we have never before heard of it; but if it be as much larger than other hospitals as its report is larger than other hospital reports, Columbia may well be proud.

To use mild language, the book is not wanting in self-assertion. With its broad sheets and wide margins, its large, clear type, its elaborate spaces, its four hundred and thirty pages of printed matter, encased in crimson boards, it seems to claim relationship as a sort of distant cousin to the Army Medical Circulars; for upon the "Columbia Hospital for Women" the bright sun of official patronage has risen, and has gilded its towers—if it have any—with a gleam of governmental gold and glory.

As no alumni cluster as yet around this young institution,—as the Honorable Secretary of the Interior and the clerks of the department could scarcely be expected to contribute articles of gynæcological interest,—the great bulk of the work has fallen upon the actual officers, and the text treats principally of cases occurring among its inmates. A short history of the hospital opens the volume (if we except a few loose prospecti of the "College of Obstetrics and Gynæcology," which we found in hiding between the fly-leaves). From it we venture to quote the following: "By comparing the reports of this institution, for the last two years, with the reports of similar institutions in other parts of the country, it will be found that in proportion to our fixed population we furnish gratuitously medical and surgical relief to at least twenty per cent. more patients than are relieved at the hospitals in New York, Philadelphia, and other large cities."

The medical world, both in America and Europe, is beginning to think that it has been relieving gratuitously far more than there is any need for. The point made, too, about "in proportion to our fixed population" is odd. Who would think, now, that Senators, Representatives, and lobbyists would make any great demands upon an institution devoted to gynæcology? It also seems inconsistent to talk in one place of "fixed population," and in another to state that so many beds are reserved for soldiers' widows and wives and the many strangers who come constantly to the national capital.

The statistics do, indeed, appear favorable. Thus, the number of in- and out-door patients for 1872 was 4576: of these 3708 were cured, 561 relieved, 21 died; the rest incurable, unknown, and under treatment. Assuming the same ratio of success in these, we get an average of one unsuccessful result in about eighty, and one death in about every two hundred and fifteen cases; many of these being cases requiring surgical operation. The air of Washington is proverbially pure.

The first article, by Dr. J. H. Thompson, is upon lacerated perineum, and contains much good work, giving a full account of thirty-four out of the fifty-three cases occurring since the opening of the hospital,—a larger number of cases, it seems to us, "in proportion to the fixed population" of Washington, than New York, Philadelphia, and other large cities could speedily produce. The various causes of laceration are gone into by the author, scarcely sufficient stress, it seems to us, being laid upon the effect of sudden descent of the shoulders surprising the momentarily relaxed perineum, and too much upon the use of the forceps, which certainly prevent more lacerations, in careful hands, than they cause in careless ones, unless the national capital possesses more careless obstetricians "in proportion to its fixed population," etc.,—a thing we should be very sorry to believe.

A paper on vesico-vaginal and recto-vaginal fistula, admirable in every way, follows; then one on displacements and diseases of the uterus, with cases, and operations for their relief, including amputations of the cervix. We have not alluded to the illustrations of this volume as yet, but on page 77 we come upon one, illustrating procidentia, which is a study in itself. It reminds us of the old puzzle of Rosamund's bower. We have tried in vain to follow the meanderings of the peritoneal folds, and give it up. This plate—No. VII.—is savagely copied from Savage, and the worst of it is that the indebtedness is acknowledged. In fact, the plates generally are not of a high order. We are early told that as anatomical delineations of the female perineum are wanting in most works, two are given, one from Gray, the other a copy of one published by Agnew in his well-known—but by the author unnoticed—paper in Pennsylvania Hospital Reports, vol. ii. We also would call Dr. Thompson's attention to the magnificent plates in Savage's work on the Female Pelvic Organs. Baker Brown's work, too, if our eyes do not deceive us, is laid under unrecognized contribution,—errors and all. While on the subject, we may call attention to Plates VIII. and III., as unique, if not specially artistic. The flattening of the thigh in the former is probably an atmospheric effect. We hardly like to suggest that the immense protrusion of cervix in the latter is due to loom,—a sort of mirage, in fact,—though after comparing the plate *from* Savage with the plate *of* Savage we are not confident of the Washington artist's ability to hold the mirror up to nature.

To return, however: a very striking case of cancer of the uterus treated by bromine is given in the article on cancer, p. 155. This article is very extended, being largely made up of citations from other authors. Concerning the part played by chronic metritis in the causation of cancer, we think that a study of the author's own arguments would lead us to a different conclusion from his.

On page 202, a case of removal of a crochet-needle from the female bladder is given, followed by an extended and interesting account of similar accidents, exhibiting considerable research. By an unaccountable oversight, however, the case reported by Dr. T. G. Morton in vol. ii. p. 46 of Pennsylvania Hospital Reports is omitted,—a case remarkably similar to the one on which the article is founded. On page 223 is given a case of extirpation of the parotid gland, and, a few pages on, one of removal of the third lobe of the thyroid gland. We scarcely see the connection of these with the rest of the volume,—diseases of the parotid and thyroid glands being, unfortunately, shared by the male sex.

On page 227 a case of impacted fæces diagnosed as ovarian tumor of two years' duration is given. In this, atropia was administered on the theory that it "relaxes the circular fibres at the top of the rectum." Whether the theory be correct or not, suppositories of $\frac{1}{18}$ grain of atropia nightly, assisted by compresses of stramonium infusion to the lower abdomen and matinal enemata of oil and water, proved successful,—the treatment lasting from May 2 to July 10. In this, as in another case given, diarrhœa had been a prominent symptom.

Articles on pelvic cellulitis and diseases of the rectum conclude this section of the report, and, so far as the work informs us, it is all, up to this point, from the pen of Dr. J. H. Thompson.

The report of the dispensary, p. 250, consists of an article from Dr. F. A. Ashford, section Diseases of Females, containing a table of 1612 cases, followed by a paper on metritis acute and chronic, and endometritis, extending over sixty-two pages, full of interest and well worthy of perusal.

The section Diseases of Children opens with a paper by Dr. S. C. Busey upon intermittent fever, 334 cases having presented themselves during the period covered by the report. Statistical tables showing the percentage of cases among white and colored, adults and children, and males and females, are given.

To one point we wish to call attention. Page 328, Dr. Busey says, "Except in children one year of age and

under, there is no absolute certainty of arresting the paroxysms unless from fifteen to twenty grains" (of quinia) "be given during the intermission." Emboldened by a considerable experience in the malarial diseases of children, we wish to protest against the indiscriminate following of any such rule. We are convinced that by following the same law in regard to the dose of quinia that we do with other drugs, we can arrest paroxysms *as certainly* in children as in adults, however certain that may be; *i.e.*, for instance, that three grains of quinia for a child between three and four years are as effectual as ten or fifteen grains for an adult; and we are not convinced by the opinions of Binz, Jacobi, and others, that immense doses are free from danger. We may add that the muriate of quinia possesses advantages, in Dr. Busey's opinion, in the cases of children.

Dr. Busey next treats of entero-colitis, cholera infantum, dysentery, and difficult dentition together, because, he says, they so run one into the other as to make definite division difficult. Page 331, "all have one symptom, increased frequency of the alvine dejections," and, again, "yet all admit that clinically it is impossible to determine with accuracy the pathognomonic differences," and on page 332, "if frequent and exhaustive serous and choleraic stools attended with rapid waste and collapse define and limit cholera infantum, . . . where can be classed that common form of simple diarrhœa not usually attended with fever or abdominal tenderness? Is not the distinction one of degree rather than kind?" To which we add for the author's benefit the query, Are Asiatic cholera and cholera morbus different in degree only, and not in kind? Are Asiatic cholera and the effect of a Seidlitz powder different in degree and not in kind?—and pause for a reply. We had always thought that cholera infantum, by its suddenness of onset, by its obstinate vomiting and rapid collapse, was a sufficiently marked disorder to be diagnosed as a rule. In fact, the author admits as much somewhat farther on.

In regard to treatment, we find a little of the same confusion as in regard to diagnosis, though the article is carefully written by one familiar with the literature of the subject, and is of great interest. We can agree with the author's condemnation of mercury and his confession of the inutility of vegetable and mineral astringents. His reliance is upon bismuth, opium, and the alkalies, especially bismuth, whose beneficial effects we suspect are more due to the opium and alkalies with which he combines it than to its own inherent powers. He considers chalk as the best antacid, and recommends morphia and sulphuric acid in atonic diarrhœa in which the above treatment has failed. The use of creasote, an exceedingly valuable remedy in cholera infantum, is not noticed by the author. In entero-colitis, suppositories of opium are preferred to liquid injections, and we could wish that he had given us his experience as to the dose to be employed in proportion to the age, the risk of opium in suppository, in infants, being very great,—it being exceedingly difficult to give enough without giving too much, and in managing suppositories the dose cannot so readily be gradually increased and watched as in giving it by the mouth. The suggestions as to diet are, in the main, good. The recommendation of "pure and fresh country grass-fed cow's milk," however, is unfortunately too much like the alchemical formula for the elixir of life, beginning, "Take a thousand pounds of pure gold." The practical fact about milk appears to be that in very many cases it is the provoking cause of cholera infantum in cities; that its withdrawal does as much good as the administration of remedies. Of course something must be substituted; and, notwithstanding the aspersions which have been cast upon the merits of beef-tea, we know no better substitute than it, the withdrawal of milk and farinaceous food and the use of beef-tea for a few days sufficing, in the majority of cases seen early, to arrest the disorder at its outset. Of course, in the face of chemical analysis, and the bugbear, incipient science, he would be bold who would continue it as sole article of diet for any considerable time. The infant stomach will often reject beef-essence, where it retains beef-tea.

Brandy and ammonia are advised in the collapse of cholera infantum, though how often they aggravate vomiting and fail to produce reaction all know. Nor have we found Huxham's tincture of any use until the disease is completely checked. In fact, sulphate of quinia with opium and nux vomica has been better borne, in our experience, than the tinct. cinchon. comp.

On page 360, in regard to the thirst accompanying diarrhœa and cholera infantum, Dr. Busey says, "This is generally more apparent than real. The child is not able to appreciate the difference between dryness of the mouth and fauces and the demand of the system for fluid." This want of mental acumen on the part of the child is also, strange to say, discoverable in adults under similar circumstances. Again, "Pure water should never be given." We think this a mistake. Pure, cool water given a little at a time is certainly no more injurious than unlimited draughts of its recommended substitutes,—rice-water, toast-water, or even the albumenized water,—all of which, as they cannot be made continually, are apt to deteriorate rapidly in freshness and purity. We feel some doubt, however, whether the author's condemnation of "pure" water be not a covert commendation of the impure. Certainly, if impure water is useful for infants, it is not difficult to get.

We have read the article following, also by Dr. Busey, "on the value of certain drugs in the treatment of bronchitis," but can come to no satisfactory conclusion about it. It is hard reading, because the author does not tell us early what he intends to prove. Suspense may keep one up through a long novel, but never through a medical article somewhat long and very dry.

The report of the Department of Diseases of Eye and Ear, by Dr. D. W. Prentiss, concludes the volume. All in all, this is the most thoroughly true hospital report we have ever seen. It shows an amount of faithful work of which any institution might be proud, and, while we think it will be difficult, on the same plan, to make succeeding reports come up to its standard, we hope earnestly that they may, and recommend the present volume to the careful attention of all interested in the subjects of which it treats.

GLEANINGS FROM OUR EXCHANGES.

Rare Dislocation of the Humerus (*British Medical Journal*, June 7, 1873).—A. W. Stocks reports a case of dislocation of the humerus, where the flattening of the shoulder and the prominence of the acromion, said to be common to all luxations of the humerus, were absent. He describes the case as follows:

"The shoulder at first sight gave no indication of any abnormal position of the head of the humerus. There was no undue prominence of the acromion, nor perceptible flattening of the deltoid muscle, conditions almost invariably present in dislocation of the humerus. The arm was capable of very extensive movements: it could be brought to the side, raised to a right angle with the chest, and extended forwards. The only motion which was restricted, and that to a slight degree, was the backward one. Of course, none of these movements could be accomplished without considerable pain. The

sole alteration in the figure of the joint was a slight flattening on its anterior aspect, rendering the coracoid process just perceptible to the eye, and a slight bulging under the posterior edge of the acromion.

"It will be remembered that in the normal condition of the shoulder-joint, when the arm hangs perpendicularly by the side of the body, the head of the humerus projects slightly beyond the anterior edge of the acromion process, and that there is a corresponding hollow or depression under the posterior edge of that process. A condition the exact reverse of this was the whole distortion found in this case."

The dislocation here was probably "sub-acromial," and the head of the bone rested on the posterior edge of the glenoid fossa. In considering how it was retained in such a position, he concludes:

"The only theory that I can offer is, that the long head of the biceps had become partially dislocated from its position, arching over the head of the humerus, and slipped down anteriorly to it, preventing its return into the glenoid fossa; whilst the tendon of the subscapularis, which is generally in backward dislocation found to be detached from the lesser tuberosity of the humerus, had not been ruptured, so preventing the further and more evident displacement of the bone behind the neck of the scapula."

Spontaneous Origin of Cholera.—In a very interesting account of cholera epidemics in South America (*American Journal of the Medical Sciences*, July, 1873) Dr. E. M. Estrazulas sums up as follows:

"1st. Cholera was unknown in Paraguay and La Plata previous to 1866.

"2d. Before the armies were stationed at Estero Bellaco, no case had occurred, and after the removal of the troops the disease totally disappeared.

"3d. No vessels from infected ports arrived at La Plata or Paraguay previous to 1866.

"4th. If cholera had been imported from abroad, the cities at La Plata ought to have been the first attacked.

"5th. Troops coming from Brazil could not have brought the disease with them, as it did not exist at any Brazilian port or city at the time.

"6th. Cholera appeared first in Paraguay, and following the course of the rivers infected in its downward march all the cities on their banks.

"7th. The disappearance of the successive epidemics followed an inverse route to that of the invasion.

"8th. The Paraguayan army, where the disease first appeared, was secluded from the rest of the world and completely blockaded by land and water.

"9th. The disease remained endemic for three years in Paraguay.

"10th. The combination of causes at Estero Bellaco resembled those presented in India.

"11th. The combination of causes in India has never been reproduced except in Paraguay."

Trigeminal Neuralgia treated with the Constant Current.—In *The Practitioner* for June, 1873, Mr. Samuel Craddock, F.R.C.S., reports a case of severe neuralgia of the left fifth nerve, in a neurotic patient, æt. 64, following exposure to cold and damp, and persisting for five months. Every branch of the sensory portion of the nerve became affected, and for eight weeks nothing but liquid nutriment could be taken, and that only through a glass tube. Alkalies were administered under the impression that the disease was due to the gouty diathesis; iron, arsenic, and nux vomica were given; hypodermic injections of morphia and atropia were employed; and finally, after the failure of these and many other remedies, the daily application of a constant current derived from eight cells of Weiss's battery was commenced. The positive pole was placed at the back of the neck, and the negative applied successively to the several foci of pain, being kept steadily on each for a minute or more. After the third application the improvement was marked and continuous, and at the end of a fortnight the cure was complete. The direction of the current here was "inverse," from centre to periphery; and this is one of many cases which seem to show that the older ideas regarding the influence of the direction of the current must have been to a large extent erroneous.

Use of Gelatin Suppositories in Obstinate Constipation due to Accumulation of Fæces in the Rectum.—In the above cases, and when there exists an accumulation of hardened fæcal matter in the rectum or colon, Dr. Nagel (*Allgemeine Wiener Med. Zeitung*, April 1, 1873) finds that when purgatives and enemata have failed, and in order to dispense with the use of the anal *curette*, suppositories of gelatin constitute an easy, harmless, and effective means of removing the evil. The suppositories are made of brown gelatin. They are steeped in water for twelve hours, and being thus softened and enlarged are introduced into the rectum. By subjecting the patient to a suitable regimen, an evacuation of pultaceous matter is obtained in twenty-four hours. The author attributes these effects to the hygrometric properties of the suppositories.—*Lancet.*

Nocturnal Incontinence of Urine cured by Chloral Hydrate.—Dr. Girolamo Leonardi has recorded in *Raccoglitore Medico* five new cases of the above, in which the use of a solution of chloral hydrate was entirely successful. The patients were all aged eight to ten, and the disease had resisted various means which had been previously employed. In all the cases the cure was effected most promptly, and was permanent. The dose was from seven to fifteen grains in about an ounce and a half or two ounces of water, taken at once or in two doses. In some cases the very first dose was successful, in others five doses were necessary to effect the cure. The drug was administered in the evening, two hours at least after food; and Dr. Leonardi strongly recommends that the patient should drink as little water as possible.—*Lancet.*

Enlargement of the Tonsils as a Cause of Nightmare (*British Medical Journal*, June 7, 1873).—J. Warrington Haward, F.R.C.S., relates some cases of nightmare occurring in children, resisting ordinary methods of treatment, and increasing in frequency and severity, which were at once permanently cured by the removal of a portion of the tonsils. As these glands were enlarged, he was led to believe that the obstruction to respiration and consequent cerebral congestion were sufficient to produce the disorder. Nightmare due to gastric irritation or dentition occurs, as a rule, only once in the night, while that due to enlarged tonsils often recurs several times in the same night, and is invariably observed to be aggravated by the child catching cold.

Fatal Poisoning from Chlorate of Potassa.—In the *Pacific Medical and Surgical Journal* for June, Dr. A. M. Ferris gives a case of supposed poisoning from chlorate of potassa, where a "large spoonful" of the salt was swallowed by mistake, and was followed by congestion of the surface, blue lips, cold extremities, inability to empty the bladder, hæmaturia, and death. At the post-mortem examination the auricles were found filled with large coagula, and the ventricles empty and contracted. The lungs and abdominal viscera were healthy. As the brain and kidneys were not examined, absolute proof appears to be wanting that the symptoms were really due to the salt of potash.

Delirium Tremens after Chloral-Drinking.—Dr. George F. Elliott (*Lancet*, May 24) relates an interesting case where the excessive use of chloral produced inaptitude for exertion, muscular pains in the upper extremities, loss of appetite, great thirst, constantly fetid breath, constipation, and finally a semi-comatose condition. The patient, a man æt. 35, had been in the habit of taking fifteen grains of opium daily for many years, but had for a few weeks substituted chloral, taking two hundred grains in the twenty-four hours. Its withdrawal produced at first sleepiness, and then all the phenomena of delirium tremens, which subsided under the use of large doses of tartar-emetic and opium.

MISCELLANY.

Making Mistakes.—If Liebig was hasty in expressing an opinion, he was equally ready to retract when convinced that it was erroneous. I once had a conversation with him on this point, and he spoke of the fear some scientific men had of being caught in a mistake. He considered errors inevitable and inseparable from the accomplishment of any scientific work; and it was on this occasion that he made the oft-quoted remark, "Show me the man who makes no mistakes, and I will prove to you that he does nothing." It is easy enough for a scientific man who publishes nothing, but only criticises others, to escape the charge of committing errors, and for such persons Liebig entertained a wholesome contempt. What he desired, above all things, to know, was the truth; and when he thought he had discovered it, he was anxious to give the benefit of it to the world.—*Journal of Applied Chemistry.*

The Cholera in Europe.—Reports from Dantzic state that on June 19, 27 cases of cholera occurring among Polish boatmen had been received into the hospitals at Neufähr and Strohdalch, of which 19 had died. The disease has reappeared in Warsaw, where from May 30 to June 12 there were 19 cases, of which four were fatal. Eight cases, of which five died, occurred in the neighborhood of Thorn on June 13 and 14. In Moravia, where no cases of cholera had occurred after March 23, the disease broke out on May 31 in a place in the district of Znaim. Six persons were attacked, of whom five died. In Galicia, during the second half of May, 118 new cases of cholera occurred in seven districts, with a population of 13,084. Including 48 remaining under treatment, there were in all 160 cases, of which 117 recovered, and 43 died.—*British Medical Journal.*

An Egyptian Medical Papyrus.—From the *Allgemeine Medizinische Central-Zeitung* we learn that Professor Ebers, of Leipsic, during a recent visit to Egypt, has obtained possession of an ancient papyrus, written in the oldest hieratic character, and believed to be above 3400 years old. Notwithstanding its great age, not a single letter is wanting in the hundred and ten leaves of which it consists. It is a complete treatise on ancient Egyptian medicine, in which the diseases of the several parts of the body and their treatment are described. Nine leaves are devoted to diseases of the eyes,—a subject in which the Egyptians were in advance of all other nations of antiquity. It is said that the King of Saxony has obtained possession of the papyrus for the library of the University of Leipsic.—*The Clinic.*

Medical Societies in Switzerland.—There are forty medical societies in Switzerland, including practitioners in all the cantons except Tessin and Wallis. The largest is the cantonal society of Zurich, with 149 members. One—the Oberaargau Medical Society—is more than a hundred years old; and five others have existed more than fifty years. About half of them hold twelve or more meetings in the year; the remainder meet less frequently—from one to seven times in the year. The cantonal society of Bern possessed a fund of 9500 francs at the end of 1871; the subscriptions to the others vary from one to five francs yearly.—*London Medical Record.*

Hygienic Use of Tea.—In a paper by Dr. Adam Smith, read before the London Society of Arts, the use of tea was recommended in the following cases: after a full meal, when the system is oppressed; for the corpulent and the old; for hot climates, and especially for those who, living there, eat freely, or drink milk or alcohol; in cases of suspended animation; for soldiers who, in time of peace, take too much food in relation to the waste proceeding in the body; for soldiers and others marching in hot climates, for then, by promoting evaporation and cooling the body, it prevents in a degree the effects of too much food, as of too great heat.

Quick.—They have rather a rapid way of living and dying in Memphis. Dr. Miller, of Atlanta, who was in Memphis while the cholera prevailed there, narrates a sprightly incident. At seven o'clock a man went to market and bought his breakfast, went home, cooked it, and was eating it, when he was taken with cholera. He sent for Dr. Miller, who visited him at nine o'clock, prescribed, and told him he would be back in an hour. At a quarter-past ten he returned. The man was not only dead, but had been buried, and the room swept and garnished for another occupant. What could Dr. Miller have given him?—*New York Tribune.*

Josh Billings on Doctors.—Doktors are not all quaks; yu hav got wrong noshuns about this.

Doktors, lawyers, and ministers hav a hard row to ho; they hav to deal with the kredulity, knavery, and fears ov the people, three ov the most difficult traits in human natur tew handle.

If i was a doktor, and understood mi bizziness, i should *doktor mi pashunts*, and let the disease take care ov itself.

More folks are kured this way than enny other.

It ain't much trouble tew doktor sick folks, but tew doktor the well ones is bothersum.

For upwards of forty years the ipecacuanha-plant has been cultivated in the Royal Botanic Garden, Edin-

burgh; but it is only recently that the plant has been propagated. The continued destruction of the ipecacuanha-plant in Brazil, and the risk of scarcity in the supply of this valuable remedy for dysentery in India, have called attention to the desirability of introducing its cultivation into the British possessions in India. Great numbers of the plant have, therefore, been sent from Edinburgh and extensively distributed in India.—*Medical Times and Gazette.*

An Application to Corns.—Castor oil applied to the corn, after paring closely, each night before going to bed. It softens the corn, and it becomes as the other flesh. It will cure every time.—*Southern Med. Record.*

Female Doctors.—The *Pharmaceutical Journal* quotes the following couplet from the "Nugæ Canoræ Medicæ," where the poet-laureate of the Edinburgh New Town Dispensary predicts,—

"An' when the leddies get degrees,
Depen' upon 't there's nocht 'll please
Till they hae got oor chairs an' fees,
An' there's an en' o' you an' me.
For a' that ken the woman craiter
Maun own it is her foremost faitur
To tak' to lecturin' by natur';
An' hoo she'll do't ye sune 'll see."

A Labelled Monarch.—The King of Dahomey is reported to have changed the fashion of his wearing-apparel. Seated on his throne, he received a scientific commission, not long ago, his body profusely decorated with the blue, gold, and green labels which had been carefully peeled from the medicine-bottles brought by Europeans into his dominions.

Indian Wit.—The Modocs seem to have taken a hint from their pale-face brethren, and are prepared to advance the plea of insanity in defence of Captain Jack. The distinguished murderer is reported to have conducted himself in the most approved fashion, sitting apart, plunged in moody thought, and unapproachable by his own relatives.

A Professor of physiology, in explaining to a class of female students the theory according to which the body is renewed every seven years, said, "Thus, Miss B., in seven years you will in reality be no longer Miss B." "I really hope I sha'n't," demurely responded the young lady, casting down her eyes.

To Prevent Glue becoming Sour and Mouldy.—The addition of a quantity of carbolate of soda, just sufficient to give a strong smell to the glue, will accomplish the desired result.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JULY 8, 1873, TO JULY 14, 1873, INCLUSIVE.

Peters, D. C., Surgeon.—Granted leave of absence for thirty days, with permission to apply at Headquarters Division of the South for an extension of thirty days. S. O. 106, Department of the Gulf, July 1, 1873.

Retransferred from Department of the Gulf to that of the South, and on expiration of his present leave to report in person for orders to Headquarters Department of the South. S. O. 36, Military Division of the South, July 4, 1873.

Greenleaf, Charles R., Assistant-Surgeon.—Granted leave of absence for three months. S. O. 124, A. G. O., July 9, 1873.

Brooke, John, Assistant-Surgeon.—To repair temporarily to Portland, Oregon, and report to the attending Surgeon for medical treatment. S. O. 78, Department of the Columbia, June 24, 1873.

Phillips, H. J., Assistant-Surgeon.—Assigned to duty with troops about to march to the Columbia River. S. O. 76, Department of the Columbia, June 20, 1873.

Koerper, E. A., Assistant-Surgeon.—To report to the Commanding General, Department of the Lakes, for assignment to duty. S. O. 137, c. s., A. G. O.

Weekly Return of Deaths and Interments in Philadelphia for the Week ending Saturday, July 12, 1873.

Diseases.	Adults.	Minors.	Diseases.	Adults.	Minors.
Abscess	1	...	Gangrene	1	...
Apoplexy	6	...	Hemorrhage	...	1
Burns and Scalds	2	...	" from Lungs	2	...
Cancer	...	1	" Throat	1	...
" of Liver	1	...	" Uterus	...	1
" Uterus	1	...	Hernia	1	...
Casualties	6	...	Hooping-Cough	...	3
Cerebro-Spinal Meningitis	1	6	Inanition	...	4
Cholera Infantum	...	159	Inflammation of Brain	4	14
" Morbus	8	...	" Bronchi	...	2
Cirrhosis of Liver	2	...	" Heart	1	...
Congestion of Bowels	...	1	" Liver	...	1
" Brain	2	5	" Lungs	6	2
" Lungs	2	1	" Peritoneum	2	...
Consumption of Lungs	26	7	" Stomach & Bowels	...	8
Convulsions	1	21	Intussusception	1	...
Cramps	...	1	Mania a potu	1	...
Croup	...	2	Marasmus	...	28
Cyanosis	...	4	Measles	...	2
Debility	10	20	Neglect	...	1
Diarrhœa	5	2	Old Age	6	...
Diphtheria	...	2	Paralysis	5	...
Disease of Heart	11	...	Poisoning	1	...
" Kidneys	2	...	Pyæmia	1	...
" Lungs	1	...	Rheumatism	1	...
Dropsy	2	2	Rupture of Urethra	1	...
" of Brain	...	5	Softening of Brain	3	...
" Heart	1	...	Still-Born	...	16
Drowned	3	3	Sunstroke	3	3
Dysentery	2	...	Tabes Mesenterica	...	2
Erysipelas	...	1	Teething	...	1
Fatty Degeneration	1	...	Tetanus	...	1
" of Liver	1	...	Tumors	2	...
Fever, Scarlet	1	10	Unknown	3	...
" Typhoid	4	4			
Fracture of the Skull	1	...			
" " Spine	1	...			
Totals				151	347

Meteorological Observations taken at the Signal Office, Philadelphia, during the Week ending Saturday, July 12, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain. In.
July.				
Sunday 6th	29.95	71	Fair, Clear.	.....
Monday 7th	30.01	69	Clear.	.....
Tuesday 8th	29.96	70	Cloudy.	.....
Wednesday....9th	30.01	73	Clear, Fair.	.....
Thursday....10th	30.00	72	Clear, Fair.	.....
Friday 11th	30.00	71	L't Rain, Fair, Clear	.28
Saturday....12th	30.23	70	Fair, Clear.	.....
Means	30.02	71		.28

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

SATURDAY, JULY 26, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE.

REMARKS ON CONCUSSION OF THE SPINE.

CASES OF SPINAL CONGESTION, WITH ONE AUTOPSY.

Reported by Dr. W. H. PARISH, from a Lecture

BY DR. H. C. WOOD, JR.,

Clinical Lecturer on Diseases of the Nervous System in the University of Pennsylvania.

CONCUSSION of the spine has, by writers, been divided into two kinds: primary and secondary concussion. The former term has been applied to a condition attended with symptoms which present themselves immediately after the reception of a blow on the back, or more generally of a fall, as from a scaffolding or a railroad-car. In this, the *true* form of concussion of the spine, there is no discernible lesion even to the microscope; yet there must be some disarrangement of the relations to each other of the minute nerve-structures of the cord,—a disarrangement which occurs at the time of the reception of the injury, and which is immediately attended with such symptoms as were presented in the following history of the patient now before us.

I. S. B., æt. 44, fell, on August 27, 1872, through a skylight, down, some thirty feet, to the floor. He was picked up in an unconscious condition, but recovered his mental faculties in about twenty-four hours. From the moment of the fall he was absolutely paralyzed in all those muscles dependent for their nerve-influence upon the spinal cord below the fourth or fifth vertebra. Although placed under no medical treatment, in three weeks he was able to move the toes of the left foot, and a few days later motion began gradually to return to the other extremities. In six months, still without medical treatment, the man was able to walk, though with decided lameness.

The above statements we gathered from the patient himself. On the 18th of March he was first seen by us. He then presented the following conditions:

His powers of locomotion were quite good, yet there was a lameness in his gait. There was no marked wasting of the muscles of the lower extremities. The grasp of either hand was less than normal: the right being somewhat better than the left. Since the finer motions of the fingers were impaired, he could scarcely pick up a pin. The arm could be flexed by the patient, but with apparently more than ordinary exertion. The biceps in each arm seemed to have lost much of its power, and there was tonic spasm of the triceps extensor. Both deltoids were evidently wasted. There were at times, also, pains along the vertebral column. To-day there is no change in these conditions, excepting some slight improvement.

At the time this man was picked up there was complete spinal paralysis, and the case was therefore one of spinal concussion; but that concussion has resulted in the production of some positive inflammatory lesion. I do not think there is softening of the cord-substance. When we apply the electrodes of the battery, you see that the deltoid, triceps, biceps, and, in fact, all of the arm-muscles, respond. This response shows that the nerve-cells of the cord cannot be destroyed, for were such the case the deltoid would not at all respond at this date, more than six months from the occurrence of the injury.

Were there softening, the paralysis would be considered beyond the reach of any remedial measure. Most probably there is slight sclerosis, with meningitis. By sclerosis is meant an inflammation of the connective tissue of the cord, attended with induration, and slow and chronic in its nature. The pain and muscular spasm indicate an inflammatory condition of the meninges irritating the nerves as they pass through those coverings. It has been stated that if there is chronic meningitis, the application of heat or cold along the vertebral column will be accompanied with more than the ordinary amount of pain. This test, when responded to, is of diagnostic value, but if it is not productive of pain we cannot say that chronic meningitis does not exist. In this instance, as you now see, this test gives no response.

We have instituted the following treatment for this patient. He is taking the iodide of potassium in liberal doses, one drachm three times daily, after meals. If the remedy produces much nausea, headache, or its characteristic eruption, it is to be suspended for a few days, but to be renewed and persisted in. It would be trifling with our patient to administer this remedy in five- or ten-grain doses. Counter-irritation along the spine is to be employed. For the muscles we have directed kneading, friction, and faradization, with passive exercise. To the contracted muscles is to be applied belladonna in some form, either by rubbing in the ointment, or, by what is better, the hypodermic use of atropiæ sulph. This remedy, by diminishing the power of nerve-structure to convey nerve-influence, is our most efficient agent in the relief of spasm. Of course good diet, fresh air, and medicinal tonics, as called for, are not to be neglected. I believe our patient can be cured if such a course is faithfully persisted in.

Under the head simply of concussion, or sometimes of secondary concussion, of the spine, have been described numerous cases, which, from their frequency in railroad-accidents, are assuming great importance. Especially is this true since they are very frequent subjects of legal inquiry, owing to the institution of suits for damages by the injured parties. In these cases the symptoms do not develop themselves at once. Often has the subject of this affection extricated himself from the *débris* of a wrecked train, assisted those about him in getting free, spent hours, perhaps, in relieving the injured, and congratulated himself that he has escaped injury. Days, weeks, or months after the injury, the symptoms of deranged innervation come on, perhaps most insidiously, and progress until the sufferer is as much a wreck as the fated train itself. The chief point I want to call your attention to to-day, is that these cases are not cases of concussion,

but are really instances of traumatic inflammation or congestion of the cord, and have no more right to the name by which they are generally known, than has an abscess of the brain from external violence to that of concussion.

The relation between these cases and those of true spinal concussion is, indeed, almost precisely that between cerebral concussion, with its sudden suspension of consciousness, and that of latent abscess of the brain from a blow, with its slow and insidious development of symptoms.

There is now under our care at the Philadelphia Hospital a patient whose history will present you a case of this so-called concussion of the cord. It is as follows:

Thomas S., æt. 35, of good general health, fell, on March 6, 1873, through the opening in a coal-car while dumping it, and alighted on his feet. The accident was accompanied with some pain in the small of the back, but the man was able to walk home,—some two miles. He was admitted to the hospital on March 8, being, however, able to walk a considerable distance. On the 9th he noticed that his legs were weak. On the 10th there was increased weakness, with numbness and pricking sensations in the feet and legs, and to a slight extent in the left hand. There was also pain in the lumbar region. On the 14th the aching pains and numbness in both legs had increased; the left being more affected than the right. The patient was entirely unable to stand; and so complete had become the paralysis of the lower extremities that he could not raise his knees from the bed. The flexor muscles seemed somewhat less involved than the extensors. No anæsthesia.

No distinct loss of power in the upper extremities. At night there was some shortness of breath.

He was ordered ext. ergot. fl. ʒss; fifteen ounces of blood were taken from the margin of the anus by leeches.

On the 15th the pains had disappeared.

March 20.—Slight improvement since last note. The knees can be slightly raised from the bed. Has not had an erection of the penis since his admission.

To-day began the use of a continuous current along the spine daily, and faradization to affected muscles on alternate days. Friction, kneading, and shampooing of the lower extremities with lin. saponis are also to be resorted to.

March 25.—Ext. ergot. fl. increased to fʒj *ter die*, without being productive of any unpleasant symptoms save a little nausea. Motion in legs a little improved.

Now, gentlemen, what is the true pathology of this case? Evidently, it is not right to call it concussion. Evidently, if there is not to be an endless confusion in the nomenclature of nervous disease, this affection is to be called a traumatic lesion of the spinal nerve, precisely as a similar affection of the brain similarly produced would be spoken of as a traumatic lesion of the cerebral centres. But can we not define more particularly what the lesion is? Certainly. You will remember that in a lecture delivered some time since I told you that there is an acute affection of the spinal nerve, which is clinically distinguished by the gradual but rapid and unequal development of a creeping paralysis, affecting the legs in most instances more than the arms, by the absence of febrile reaction or of severe pain, and by the presence of numbness, and of a feeling of "being asleep," or of prickling, in the affected limbs. I told you also that this disease was produced by a variety of causes, among others by exposure to cold, by lying upon the back on cold ground, by fatigue, and by a "wrench of the back." In regard to its pathology you were told that post-mortems are very rare, there being very few on record, but that the lesion is without doubt a congestion of the vessels around and pressing upon the cord, and a consequent exudation of serum into the canal. Since that lecture I have had a fatal case; and I lay the history before you, to show the similarity of the symptoms with those of the traumatic case, and afterwards I will read you an account of the autopsy.

Frederick L., æt. 40, and a native of Philadelphia. From his own statements we learn that his parents were healthy; that he has never been addicted to intemperance in drinking, nor to excessive venery; he has never had a chancre; has several times fallen from giddiness, but was never afterwards confined to his bed; for several years he kept an employment office in this city. He has been in the Philadelphia Hospital on two previous occasions, suffering only with general debility.

About one year ago there were sensations of numbness and tingling in the fingers and toes, but, though weak, he was able to continue walking around. This condition lasted about one week, when the symptoms disappeared.

In June, 1872, he last applied for admission to the hospital, and was then assigned to the out-wards, his only complaint being that of feebleness. In these wards he did the work of a waiter in the dining-room. In this capacity he was willing and efficient, but for several days prior to being confined to bed he spoke of a feeling of numbness in his legs, which sensation he said was creeping upwards from his feet.

On the morning of October 7, on getting from bed and attempting to stand he found his legs unable to hold him up. Accompanying this loss of strength there was a sensation of numbness and tingling in his feet, and also in his hands, as if they were asleep.

"October 11, 1872.—To-day he was transferred to the hospital proper. When taken into the ward, about 3 P.M., he was able to stagger a few steps, the nurse stoutly supporting him. While sitting on a chair he was able to remove his own stockings.

"October 12.—The man thinks there is no impairment of his mental faculties; yet he seems easily affected, readily shedding tears. He passed his urine last night involuntarily. On getting him out of bed, his legs were found utterly unable to support him. The arms also seemed weak. He said there were marked tingling and sensations of 'pins and needles' in the right hand and in the feet and legs. The left arm having been amputated below the elbow years previously, there was no alteration in the usual sensations of the stump. An induced current caused only feeble contractions in the muscles of the legs and of the arm. There was also marked loss of electro and general sensibility in the extremities. The bowels were constipated.

"October 13.—The loss of muscular power evidently increasing; and especially is this observable in the upper extremities. To-day he was ordered fifteen dry and six wet cups, to be applied along the entire length of the spinal column, and also to receive an effective dose of castor oil. In a few hours the bowels were freely moved.

"October 14.—The symptoms seem to have undergone no change since yesterday, excepting that he is less able to retain the contents of his bladder, and his

arm has become so weak that he is no longer able to feed himself.

"October 15.—The man has some cough, and states that for the last two nights he has, at times, had a great deal of trouble about his breathing. Posteriorly his chest is full of sonorous râles. The heart-sounds are normal. He cannot now, without assistance, get his arm from under the cover.

"October 18.—Since the 15th there has been complete loss of control over the bladder, the urine dribbling away and not distending that viscus. The bowels have again become constipated. There is not absolute loss of all power in the lower extremities, but they are so very feeble they cannot be at all raised from the bed, and can be wabbled only a little. There is a similar, but less prominent, condition of the arms.

"The respirations have become exceedingly full, deep, and labored, numbering seventeen per minute. The pulse, though somewhat feeble, is quite normal. There are no febrile symptoms. Both lungs are filled with coarse sonorous râles. The sputum is somewhat purulent and bronchitic. His voice is exceedingly weak and husky, even whispering, but there is no laryngeal pain or soreness. The anæsthesia, though very marked, is not absolute. Reflex action in the legs is much diminished. The muscles of the legs respond but very sluggishly to a strong current of the second coil.

"8 P.M.—Respirations have become gasping and very feeble, but very labored. He has an anxious, distressed expression, and complains much of dyspnœa, saying that he is suffocating. These symptoms become aggravated if he is not kept in a semi-erect position. He has not been able to swallow for several hours. Being given a spoonful of milk, he was unable to swallow it, and the attempt brought on a fit of choking and intense dyspnœa.

"About half an hour afterwards he died, without presenting any additional symptoms, his mind remaining clear to the end.

"During no period of the attack have there been pains or other symptoms of rheumatism, nor was there a prior history of this affection. There have not been any convulsions or tremors of any kind; no rigidity of the muscles, no delirium, and no coma."

As I have read this case, no doubt you have perceived the resemblance of the symptoms with those of the man who was injured in the coal-car, and noted that the differences are simply of degree, the most important arising from the cord being involved higher up, in the last case. Let us now look at the autopsy, and then I think you will agree with me that our other patient is suffering from traumatic congestion of the cord, probably with a small amount of effusion.

Autopsy, fourteen hours after death.—On exposing the dura mater of the cord, the veins beneath it were seen to be much congested, and on pressure along the cord there was a distinct wave of the serous fluid within its membranes, this being evidently much increased in quantity. There were no bright spots of injection on either the cord or its membranes. There was no exudation of lymph nor other evidence of inflammation. The veins of the medulla were enlarged. The rest of the encephalon and its membranes seemed healthy.

Both lungs were much congested. The other thoracic and the abdominal viscera seemed quite normal. The kidneys were examined microscopically by Dr. R. M. Bertolet, who kindly made the following report:

"The kidney of the spinal case did not present any infiltration of the interstitial tissues, nor thickening of the tunica propria. The epithelium of the tubules was, however, swollen and cloudy from the deposition of granular matter in its protoplasm. Could easily see the nuclei upon the addition of acetic acid. This cloudy swelling does not positively indicate a hyperæmic condition of the organ during life, since it may be merely a post-mortem change."

It would be foreign to my purpose to say much about the treatment of congestion of the cord. Suffice it to point out that death occurs by a gradual increase upwards of the congestion, by a gradual rising of the exudation and consequent involvement of the respiratory nerves, which the most active measures may fail to prevent; and that the best treatment is free local bleeding from the neighborhood of the anus, the use of dry cups over the spine, and the exhibition of large doses of ergot (f℥ss to f℥j); after a time electricity may be used, especially in the form of faradaic currents, to maintain the life of the muscles affected.

[Under the treatment noted, the traumatic case made a good and rapid recovery, and in a few weeks left the hospital, well. He suffered no inconvenience, save some headache from the use of three fluidounces, daily, of the ext. ergot. fl.—H. C. W., Jr.]

The following case, occurring in my private practice, will serve to illustrate another form of traumatic spinal affection constituting a variety of the so-called concussion of the spine, besides being of no little interest as presenting such distressing and varied sensory illusions.

Mr. T., æt. 40, a gentleman of temperate habits and good health, fell on his door-steps, striking with great violence across the lumbar region. Considerable pain and stiffness ensued, but no trouble beyond what would be expected. He attended to business as usual, and appeared to be recovering from the effects of the fall. A few days subsequently, however, while lying on the bed and engaged in reading, he was surprised by a sort of spasm of the genital system, followed by an ejection of semen. In two or three days this happened again. These experiences were entirely disassociated with sexual thoughts or excitement, and were very distressing. A few days later, and when the more immediate effects of the fall had quite disappeared, a business trip to New York and Boston was undertaken. The motion of the cars, and subsequently of the boat, produced a most tantalizing discomfort in the genito-urinary system,—a mixture of sensations referred in part to the bladder and in part to the seminal tract, a disposition to urinate, and a feeling as of orgasm prevented. The whole nervous system seemed as though transformed into a genito-urinary apparatus. Involuntary spasmodic movements, as of orgasm, continued and increased in severity, without erections, until they resembled the efforts of a dog in vomiting. In this way the night was spent, sleep being impossible, although some slight relief was obtained by sitting in a basin of cold water. During the next few days the same symptoms occurred at intervals, lasting from one to three hours; the intermissions being intervals of absolute freedom from them. After the lapse of ten days the return trip to New York developed them in all their horrid intensity. In New York getting a night's sleep, he felt the next morning a sense of elasticity and sprightliness which was unusual for him even when well. But the ride in the cars from Jersey City to Philadelphia again developed the symptoms to such an extent that sitting still was not to be thought of, and the time was spent in the water-closet in vain efforts to obtain relief by pressure, by constant at-

tempts at urination, etc., although the bladder was empty. Reaching home almost crazed by the irritation, which had now become constant, his strength was so far exhausted that he was just able to crawl up-stairs and into bed. The hyperæsthesia extended to the rectum, to the thighs, to the abdomen, and to the back. Sensations as of an evacuation of the bowels, of the bladder, or of seminal emissions, were constant. Sometimes the parts felt as if exposed to a hot fire, and the skin covering them would seem as if it would break from dryness when bent. These sensations would alternate with those of such an exalted sensibility of one part or another, or of all the surface from the waist to the knees, that contact with clothing was torture almost enough to drive him mad. Then would follow relaxation, accompanied with a dreadful feeling of absence of vitality,—to the consciousness, not to the touch,—and local sweats which were marked by a peculiar acid odor. With all this there were feelings as though the urethra was being tickled with a feather; as though seat-worms were passing in and out of the rectum; as though the scrotum was made of wires which were being twanged, or of tubes through which water was flowing. Every sensuous thought had to be avoided: an exposure of a female leg on the street would almost cause a tetanic spasm. This condition of things lasted for more than three years, with intermissions or modifications of one, two, or three days, every two or three weeks. In these intervals sexual relations were normal, and always followed by relief, and even sometimes were sought only because of the relief afforded. At other times sexual thoughts provoked a hyperæsthetic condition of the genital system, on which such an intimation acted as water is supposed to act on a mad dog. At no time was there priapism, and at no time a loss of power, but at times a sensitiveness which could no more bear a sexual thought than an inflamed eye could bear the noonday sun. On one of these occasions the touch of a female's hand was so acutely and intensely painful to these sensibilities that she was entreated to leave the room instantly.

During the first three years alluded to, various other anomalous and distressing symptoms appeared with more or less frequency, as though he were trying to walk with a large, soft ball—as of a cocoanut in size and a soft orange in consistency—held between the thighs, or of a wad of cotton pressed tightly between the nates; of a twisted condition of the muscles of the legs, which twisted tighter at every step; of his drawers having become unfastened at the waist, and dropping down entangling his legs; of the feet being cushions; of the pavement giving as it does when the frost is coming out of the ground; of the feet being buried in sand or grain; of draughts of air and flowing of water from the feet upwards; of still walking after stopping in a walk; of being lifted in the air by the effort at defecation, or in response to a sneeze or cough, or an ejection of flatus; of the chest being bound in hoops; of the muscles of the perineum being grasped from within and raised and twisted; of being lifted from the bed and floating in the air. Sleep always afforded relief. Ale would also bring relief; though sometimes large quantities were required. No medicine seemed productive of any good.

Nearly seven years have elapsed since his fall. There has been a gradual improvement, with the exception of aggravations from unusual mental or physical exertions, or from changes in the weather.

The pathology of this case, gentlemen, is, I believe, one of chronic congestion, or possibly slight nutritive changes, of the nerve-cells,—chronic irritation, if you like the term, involving the posterior or sensory portions of the lumbar cord; strictly localized, and not affecting the motor centres.

Be this as it may, the case illustrates the point of the present lecture, namely, that chronic nutritive changes are the real lesion in the so-called concussion of the cord.

This idea is not a new one at all. Abercrombie and others recognized full well the truth that injuries produced chronic spinal inflammation. It has been reserved for modern times to speak of these cases as concussion of the cord; and, as a false name will often beget a false idea as to pathology, it is against the use of the term at present customary that I desire to protest. Remember, it is not merely congestion, as in the case described today, it is not merely chronic spinal meningitis, as in cases reported by Sir Astley Cooper and by Abercrombie, but any form of spinal inflammation, acute or chronic, that may arise from injury. Recognizing the true nature of these cases, you will have no especial difficulty in their treatment. Time will not allow me to go into details upon this point, but it evidently follows from what has been said that each case should be treated independently of its cause, precisely as would a similar spinal affection arising from any non-specific source.

ORIGINAL COMMUNICATIONS.

SOME CASES FROM MY OBSTETRICAL NOTE-BOOK.

BY H. E. WOODBURY, M.D.

CASE I.—Twin conception—Loss of one fœtus in the third month, by abortion—Delivery of the other still-born, in the eighth month, by version.—In the latter part of 1868, Mrs. B., a lady of prepossessing appearance, called to consult me relative to "a very peculiar state of things," and set forth her case as follows: "I am the mother of two children, both living. About two months ago, being in the third month of pregnancy, I had an abortion. I know the child came away, for I carefully examined it, and it was about the size of my forefinger. I kept very quiet in bed for some days, and suffered no inconvenience worthy of mention from the event. During the last week or two, I have felt frequent and distinct movements, as a woman does when she has quickened. I have consulted two of our most experienced physicians, and they assured me that if I had miscarried so recently I could not be pregnant, but that I was suffering from a nervous affection resulting from the miscarriage. Now, doctor, I have called to see you, because I am not satisfied as to my condition. Is it not a strange case?"

I remarked that while it might seem a strange case to her, to me it was a plain one,—one of rare occurrence, but one, nevertheless, that may, and sometimes does, occur. "To state it briefly, madam, you were pregnant: it was a twin conception; you lost one fœtus by abortion; the womb contracted kindly, and retained the other intact. This second fœtus quickened in due time, and you now feel its movements. At term, if not before (if your statement be correct), you will have satisfactory confirmation of my diagnosis in your case."

She expressed herself as satisfied with my solution of what had seemed to her "a strange enigma," and complimented me upon my readiness in unravelling the mystery.

The same evening her husband called on me. He stated that I had relieved his wife of much anxiety, and desired to know upon what grounds I based my opinion of her case. Had I ever met with such a case? I informed him that I had not; but, taking Ramsbotham's "Obstetrics" from my bookcase, I turned to page 585, and read, "Numerous cases are on record where one [*i.e.*, fœtus] has slipped away, as it were, during the early weeks of pregnancy, being expelled with scarcely any uterine effort, and another has been carried on to maturity." "I am sure that is her case," he remarked; "and we shall give you a chance to confirm it."

Time wore on, and I had not seen the parties for three months, when one day a messenger came for me in haste to attend a lady in labor. I obeyed the summons, and, on entering the lying-in-chamber, recognized the lady who had consulted me three months before. "You were right, doctor," she said; "and I would not let any one but yourself take care of me, for I anticipate a hard time, as it is premature." In this she was correct; for, after having been in labor forty-eight hours (with hard pains much of the time), the os was only dilated to the size of a shilling-piece, and the pains ceased from sheer exhaustion. The os was hot, dry, and unyielding. In this crisis, having lost much sleep during the two nights I had passed with her, I deemed it best to have counsel and assistance in the case. One of the physicians whom she had consulted previous to calling on me, met me in consultation. We determined to give chloroform, dilate the os, and deliver by version, at once. This was done; the child being still-born. On the morning of the third day after delivery, the mother had four or five convulsions. These yielded promptly to treatment,—viz., heroic doses of tinct. gelsemini; two doses sufficing to check them entirely. From this time she made a good recovery, and soon after left the city. I have since learned that she gave birth to a living child about two years after her former confinement, and that the labor was normal and of short duration.

Case II.—Twin conception—Abortion—One fœtus retained four days after the expulsion of the other.—In May, 1869, Mr. P. came for me, in haste. His wife, being in the third month of pregnancy, was taken, at an early hour in the morning, with violent pains, as of labor. I found that his apprehension of an abortion was well grounded; and in two hours after my arrival a small fœtus was expelled. A digital examination was now suggested, in order to ascertain if everything had passed and if the os was contracting. From hypermodesty on the part of the patient, this was refused. It is my rule never to leave a patient under such circumstances without first having assured myself, so far as is possible, that all is right. My rule was broken on this occasion.

Calling the next day, she informed me that she had suffered very much from "after-pains," but still refused to be examined. I prescribed a few grains of Dover's powders, and left.

On the fourth day she said to me, "Doctor, we have a good joke on you." I rejoined, "Perhaps the joke is rather on yourself: it surely is, if you have expelled another fœtus." She then produced, in a napkin, a fœtus nearly twice as large as the first one, saying, "It came away about two hours ago." I gave her a short lecture upon her duty to her physician, as well as to herself, referring to the fact that if she had permitted me to perform my entire duty she would probably have been relieved of the "after-pains" she had suffered for more than three days, and not have incurred the risk of a hemorrhage that might have occurred, although it did not in her case. Her recovery was rapid and complete.

Case III.—Retention in the uterus of a portion of the placenta for about one year.—Mrs. M., one of my patients, went home (to New York) in order to be under her mother's care during her confinement. She was absent about three months, and on her return her husband desired me to see her, as she seemed to be suffering from the effects of her confinement. Being anæmic and evidently debilitated, tonics and chalybeates were prescribed. Five months after the birth of her child the catamenia appeared, and her general health seemed much improved. She was regular for about three months, then ceased to menstruate, and believed herself to be pregnant. Pain, nausea, malaise, and nervous excitability were prominent symptoms in her case. There was enlargement of the abdomen, and she appeared like a woman three months pregnant. She suffered so much that I finally concluded to examine with the sound and ascertain if such was the case. I was truly astonished when, notwithstanding the almost unmistakable indications of pregnancy, the sound passed freely, not meeting with any obstruction for a distance of more than two inches into the cavity of the womb. I assured her she was not pregnant, but confess that the discovery of this fact puzzled me.

Surmising that this might be a case of polypus uteri, I prescribed liquor of ergot, in order to force some portion of the tumor into the cervix, and thus clear up my diagnosis. This was faithfully taken until its full effects, as evidenced by the pains resulting from contraction, were established. At this stage I concluded to suspend all treatment for a season, and rely upon the expectant plan. Three days later a mass passed from her, which she sent to me for examination. It was of the size and shape of a hen's egg. Passing through its centre, lengthwise, was an opening about the size of a small goose-quill. The outer surface seemed to be membranous. On making a section of it, my opinion that it was a portion of the placenta and membranes retained at the time of labor was greatly strengthened.

In reply to my question, "Did you notice anything peculiar in your last labor?" she said, "On the third day after delivery, something hanging from the vagina annoyed me, and, taking hold of it, I tried to pull it away. This gave me great pain; so I desisted, and soon after noticed that it had disappeared." She further stated that the after-birth seemed much smaller and passed more readily than in her former confinement.

The facts and circumstances in this case justify me in arriving at the following conclusions, viz.: that a portion of the placenta and membranes was retained, and adherent at some point just inside the cervix. That pulling upon the membrane caused rigid contraction of the cervix, and consequent retention of the mass, moulding it to the shape of the uterine cavity. When the menstrual flow was about to return, she suffered from the symptoms of suppression, until an outlet was furnished by means of the canal found passing through the centre of the mass. That the subsequent obstruction to the flow resulted from a change in the position of the mass, or closing of its upper orifice. That the ergot caused the final separation and expulsion of the mass. Her recovery was perfect.

WASHINGTON, D.C., June 28, 1873.

ANÆSTHESIA.—M. Spessa has been enabled to cauterize, in coxalgia, with Vienna caustic, also to incise a fistulous canal in the neighborhood of the sternum, without producing any pain, by previously making a subcutaneous injection, near the part, of a solution of sulphate of morphia.—*Jour. de Méd., de Chir. et de Pharm. de Bruxelles.*

PARASITIC SKIN DISEASE CURED BY THE APPLICATION OF SULPHITE OF SODA.

BY FRANCIS L. HAYNES, M.D.

TINEA SYCOSIS.

CASE I.—December 8, 1872, J. R., aged 35, car-driver. He states that he contracted the disease at a barber-shop where he was shaved two months since. A customer of the same barber was at that time suffering from a similar disease, and two more have been attacked by it since. A few days after his visit to the barber's he noticed the appearance of red, itching spots around the hairs of the beard; after about ten days, dry, white scales began to form on these spots; a week since he used an irritating wash, which has greatly aggravated the disease.

Present condition.—The upper lip is quite swollen, and very tender. On either side is a large, white, prominent tuberous elevation. The remaining surface of the lip is covered with yellowish-white crusts, through which pass short brittle hairs, which are readily extracted by the use of the forceps. Hairs of the same description are scattered here and there over the elevations.

On microscopical examination, the hairs at and near their bulbs are found to be occupied by articulated and solitary conidia of tricophyton.

The patient was directed to keep the part constantly moistened, by means of pieces of old linen, with a saturated solution of sulphite of soda in water.

I did not see him again for six months, when his lip presented no appearance of disease, and was covered with a fine growth of hair. He stated that the use of the sulphite had removed the disease in about two weeks, and that the hair had immediately commenced to grow on the bare spots.

Up to the present time (June, 1873) the disease has not recurred.

TINEA SYCOSIS.

Case II.—J. H., aged 50, shoemaker, applied to me on December 1, 1872, suffering from a very aggravated attack of sycosis of two months' standing. Large white tuberosities, hard and very sensitive, were scattered here and there over the parts usually occupied by the beard and moustache. Yellowish-white scales occupied the intervals between the tuberosities. No traces of hair could be found on the affected parts. The disease had appeared shortly after the patient had been shaved by a barber. He was directed to use the same treatment as the above case.

December 3.—Greatly improved.

December 28.—The disease has nearly disappeared. One crust, four lines in diameter, and two or three pin-head tubercles, are all that remain. Continue treatment.

January 11, 1873.—One non-inflamed tubercle remains on the base of the chin. No appearance of hair. Discontinue treatment.

March 18.—Saw the patient for the last time. No traces of disease could be found. The beard was growing vigorously.

TINEA TONSURANS.

Case III.—January 30, 1872, H. O., aged 3, female, has had ringworm of the hairy scalp for six months. It is supposed by the relatives that she contracted the disease from a playmate who was affected by it.

A diseased spot one by one and three-fourth inches in extent exists on the vertex; another, two and a half by one and one-third inches, over the right ear. Both are covered by dry, friable, dirty-yellow crusts, two or three lines thick, through which protrude a few straggling deformed hairs. On microscopic examination, numerous tricophyton conidia were discovered in the crusts and hairs covering the spots, also in the hairs immediately surrounding the spots.

The parents are directed to apply poultices continuously for two days, in order to remove the scabs.

February 1.—The poultices having proved ineffectual, the crusts are removed by the scissors, and the hair cut short over the entire scalp.

Treatment.—Apply poultices for twelve hours, then a saturated solution of sulphite of soda. The solution is to be used in this manner: A cap is to be made from old linen, which, after being moistened with the solution, is to be applied to the head. A second cap of oiled silk is to be superimposed, to prevent too rapid evaporation.

February 3.—Much improved. Spots very clean. Healthy hair beginning to grow in them. Continue.

February 11.—No appearance of disease. Hair growing vigorously. Discontinue treatment.

The patient had no return of the disease for six months, when, on a second exposure, she contracted it again. A repetition of the above treatment was followed by a speedy cure.

TINEA TONSURANS.

Case IV.—January 12, 1872, Peter C., aged 2 years, was brought to me, together with his three sisters. About two weeks ago a small moist spot appeared on the scalp. At the present time a diseased spot one by one and a half inches in extent exists on the vertex; it is covered with crusts, through which protrude a very few hairs. Scattered over the scalp are numerous similar spots of small size. The hairs on the diseased spots are short, brittle, and crooked; they can be extracted very readily, and without causing pain.

On microscopic examination of the diseased hairs, they are found to be irregular in outline; here and there the fibres are split; the ends are frayed out. They contain numerous conidia of tricophyton tonsurans.

Case V.—Mary C., aged 5 years, was attacked at the same time.

Case VI.—Anne C., aged 7 years, was attacked two months since.

Case VII.—Maggie C., aged 9 years, was attacked one month since.

All these cases presented the same symptoms, and the appearances of the diseased hairs were characteristic in all of them.

The same treatment was used as in Case III. The progress of the cure was slow, on account of want of care in keeping the solution constantly applied, and the absence of all attempts at cleanliness.

In two months, however, the disease had entirely disappeared in all the cases, and the hair was growing finely over the entire scalp.

THE URINE IN ADDISON'S DISEASE (*Revue des Sciences Méd.*).—Rosenstein reports in *Virchow's Archives* (No. 142) the results of the analyses of the urine of two patients suffering from Addison's disease. These analyses were made daily for two months, and always showed a considerable diminution in the quantity of urea excreted,—from twelve to twenty grammes in the twenty-four hours,—and a notable increase in the quantity of indican, which rose up to eleven or twelve times its normal amount.

NOTES OF HOSPITAL PRACTICE.

CASES OF OVARIOTOMY.

BY WASHINGTON L. ATLEE, M.D.,
Of Philadelphia.
Reported by J. Ewing Mears, M.D., of Philadelphia.

(Continued from page 661.)

CASE 242.—*Multilocular ovarian tumor; slight adhesion; incision five inches long; recovery.*

September 27, 1871, Dr. Atlee visited Florence, Alabama, for the purpose of operating on Miss T. K. She was 37 years old, and first menstruated at the age of fifteen years, having always been regular in every respect. Although rather delicate, she has always enjoyed pretty good health.

About two years before, she was aware that her clothing was becoming tighter about the waist. In January, 1870, she was seized with a severe pain extending from the breast to the pubes on the left side. This attack was repeated in May following. She supposed it to be an attack of indigestion, and went to Bailey's Springs, nine miles from Florence, under the care of Dr. Moody, and thought she was benefited. The menses were regular until June, 1870, when they were suspended until the spring of 1871, and after a return in March they were again suspended.

In October, 1870, Dr. H. A. Moody, of Bailey's Springs, tapped her, removing eighteen pints of opaque, thick fluid, darker than chocolate, which, after standing some time, adhered to the bucket on being poured out. After the tapping a tumor was discovered in the left hypochondrium and side, resembling an enlarged spleen in character and location. The tumor filled up the left side, and was thought to be an enlarged spleen.

The abdomen was pretty uniform in shape, and much larger than at full period of gestation. The only resonant point on percussion was over the left side and hypochondrium. The solid deposit in the region of the spleen seemed to have been transferred towards the right side. Fluctuation was more or less distinct, but interrupted. The pelvis was free; uterus central and movable, and admitted the sound three inches.

Diagnosis.—Multilocular ovarian tumor.

Drs. J. T. Hargraves, James W. Stewart, John M. Hays, John Lorence, and H. A. Moody, assisted in the operation. The patient recovered.

Case 243.—*Multilocular ovarian tumor; extensive parietal, omental, and hepatic adhesions; incision five inches in length; recovery.*

September 23, 1871, Dr. Atlee examined Mrs. J. S., of Edina, Knox County, Missouri. She was 27 years old; first menstruated at the age of fourteen, and had always been regular. She was married at the age of twenty-one; had one child five years ago, an easy parturition, and good recovery. Lactation was free. She nursed her child fourteen months, and her menses returned in twelve months after the birth of the child.

She had enjoyed excellent health until January, 1868, when, on rising in the morning, she became quite dizzy, and sick at the stomach, and so sore all over that she was scarcely able to move during the day. This condition was followed by great pain in the right side and in her bowels. This continued until about eight o'clock P.M., when the pain became so intolerable that Dr. White was summoned, and it was not until two o'clock next morning that she was relieved. The suffering continued for one week, after which she enjoyed pretty good health for about two years, when she was seized again with the same pain, and confined to bed for five weeks. After recovering from this attack a tumor as large as the fist, and hard, was discovered in the right side. This tumor always became sore on taking cold. It did not increase in size for one year, but in January, 1869, after an exposure, it began to grow, and increased rapidly afterwards. Her former weight was 132 pounds; now she is greatly emaciated. The lower extremities have been swollen since June; the left one swelled first.

She measures round the waist 34½ inches, round the umbilicus 51, from sternum to umbilicus 16, to pubes 28, and between the ilia 33½ inches.

The abdomen is very large, and covered with numerous dark-colored veins. It is pretty uniform in shape, although larger on the right side. The umbilicus is nearly obliterated. Fluctuation is very distinct. The tumor appears to consist mainly of one large cyst, with multilocular secondary cysts in its walls. The pelvis is free; the uterus is movable; the sound enters 2½ inches. Ovariotomy performed October 4, 1871. Drs. Burpee, Mears, W. Lemuel Atlee, Hoffman, Goodman, Packard, Millard, Forney, Goodell, and Sherwood, and Mr. Robinson, medical student, assisted.

The uterus was small and healthy; the intestines vascular; the omentum engorged with very large vessels; the parietal peritoneum very much thickened.

The tumor consisted of the right ovary. There was one large cyst, with secondary cysts in its walls; weight sixty pounds.

An excellent recovery followed. A letter dated April 2, 1872, says "she feels as well as ever."

TRANSLATIONS.

NEUMANN'S EXPERIMENTS UPON THE LYMPHATICS OF THE SKIN.*

BY LOUIS A. DUHRING, M.D.,
Of Philadelphia.

THE work of which the following is a brief abstract has quite recently appeared, and as the lymphatic system of the skin is a subject, comparatively speaking, unknown, the results of Neumann's investigations in this direction are here presented. Very little attention has heretofore been bestowed upon these vessels as they exist in the skin, and still less have they been studied in connection with the pathological changes of the corium.

It is to be hoped that the present series of experiments will be followed by others, with reference particularly to the condition of this system of vessels in certain diseases of the skin.

Dr. Neumann begins his observations with a review of the results obtained by previous investigators, referring in detail to the various methods and means employed for the injection of the tissue.

The plan adopted by Neumann for injecting the skin was a modification of the methods of Hyrtl and Teichmann. The epidermis and the corium having been well macerated in a mixture of alcohol, acetic acid, and water, a fine-pointed needle was thrust into the skin to the depth of a line or less. Into this little hole a delicate tube was inserted, and the injection then made by means of a small brass syringe. Two mixtures were used for the injection; one being composed of a carmine solution with glycerin, and the other carbonate of lead rubbed up with glycerin.

According to Neumann, the corium of the human integument is plentifully provided with lymphatics. They were demonstrated as existing in the papillæ, in the

* Zur Kenntniss der Lymphgefässe der Haut des Menschen und der Säugethiere. Von Dr. Isidor Neumann, Docent an der k. k. Universität in Wien. Mit 8 chromolithographirten Tafeln. W. Braumüller: Wien 1873.

upper and lower layers of the corium, in the subcutaneous and adipose tissues, and also in connection with the sebaceous and hair follicles, as well as the sweat-glands. Their presence in the papillæ was recognized in both physiological and pathological preparations. For purposes of physiological study the fingers and toes of new-born children were found to be particularly suitable, care being taken to inject also the blood-capillaries with some other colored injection-material. The papillæ are supplied by these vessels, either in the form of simple tubules, or, as is more usually the case, as loops which turn upon themselves about half-way up the length of the papillæ. These loops were beautifully exhibited in a series of papillæ. In the remaining portions of the corium they were distributed in such varied relations that it would be impossible to describe any definite arrangement. But it was especially noticeable that there existed a superficial and a deeper-seated stratum of vessels, which were bound in communication through a delicate network.

In addition to the fingers and toes of young children, where the lymphatics are most easily studied, Neumann mentions the scrotum, labia majora, perineum, prepuce and glans, and the skin of the internal malleolus, as being well adapted for examination. With the abundant available material at hand which the Vienna General Hospital liberally offers to any one pursuing scientific investigation, Neumann was enabled to examine the condition of the lymphatic system of the skin in a number of diseases, among which are mentioned examples of acute and chronic eczema, variola, Hunterian induration of the prepuce, cicatricial tissue after extirpation of sarcomas, and psoriasis palmaris and plantaris. In a typical case of eczema of the scrotum the papillæ were found very much enlarged and the lymphatic vessels likewise greatly increased in size. The lymphatics in the altered corium beneath were also strongly developed.

In five cases of acute eczema of the scrotum (three being spontaneous and the remaining two artificial eczemas) which Neumann had the opportunity of studying, the injections were made into the tissue, starting in the healthy skin just beyond the line of disease. Nothing, however, of interest was observed in these experiments, excepting that the sound skin was more easily injected than the diseased portion. It was found that in variola-pustules the upper stratum of the lymphatics was completely destroyed, while the deeper layer remained intact. In a case of Hunterian induration Neumann discovered that in the middle of the characteristic granulation-tissue of this disease, in which the normal corium had, in part, been destroyed, the lymph-vessels were present as thick, stout ramifications, stretching up into the enlarged papillæ and down as far as the sweat-glands.

In the experiments with the cicatricial tissue the injection was likewise made, starting from the adjacent sound tissue. The lymphatics here, few in number, were found to run more parallel, and were somewhat wider than normal.

The results of Neumann's experiments and observations may be summed up as follows:

1. The lymphatics of the skin present an enclosed tubular system, with independent walls, whose interior is lined with flat epithelium. These walls are nowhere interrupted by openings. There exists, therefore, no communication with the so-called juice-canals, or with other interspaces of the skin. Neither can spaces anywhere between the epithelium be noticed, not even in examples of disease where there exists an enlargement of these vessels.

2. The relation of the blood- and lymph-vessels is only constant to the extent that the former are always found much nearer the surface than the latter. The branches of the lymphatics, together with their meshes, are found spreading themselves in the deeper tissue in all directions. Nowhere, however, within a lymph-tubule could a second vessel be detected: so that there can be no ground for considering the question of invagination.

3. The lymphatics form two close and separate networks in the corium, the deeper being the more extensive of the two. Their walls are markedly capable of extension. The more superficial vessels are in general thinner; the deeper ones are thicker, and, like the first, are, to all appearances, without valves. Only among the subcutaneous vessels is it possible to demonstrate the valves plainly.

The larger lymphatics possess a number of branches with blind endings, which are of variable calibre. The lymph-vessels make their way into the papillæ of the skin, partly in the shape of single tubules, and also in the form of loops.

4. The appendages of the skin, as the hairs, hair-follicles, and sweat-glands, possess their own lymphatic capillaries situated about their periphery, but they do not enter into the follicles. The aggregations of fat are also surrounded by lymphatics. The vessels were found to be greatly developed in the subcutaneous tissue.

5. The number of lymph-vessels of the skin was found to vary according to locality. They occur in greatest numbers about the scrotum, labia majora, palms of the hands, and soles of the feet. In pathologically altered skin, an enlargement of the vessels was at times demonstrable.

In ulcerative processes the lymphatics are, in part, destroyed, though they may be regenerated. They occur only sparsely in cicatricial tissue. No vegetations were observed upon the walls of the vessels.

The brochure which we have been considering is accompanied by eight superb chromo-lithographic plates, the work of Dr. Heitzmann, of Vienna, well known for his success in producing correct drawings of microscopic pictures. The plates illustrate in a most satisfactory manner the conditions described by Dr. Neumann, and must remain a permanent contribution to the anatomy of the lymphatic system of the skin.

THE PATHOLOGY, ETIOLOGY, AND TREATMENT OF STUTTERING.

BY R. M. BERTOLET, M.D.

A BROCHURE upon the above subject, by Dr. R. Coën, has made its appearance (Wien, 1872). While the earlier writers attribute the affection to organic malformation of the vocal and speaking apparatus, others, on the contrary, viewed stuttering as a disturbance of the nervous system and of the central organ; latterly the disease has come to be regarded as the result of disturbed function of the respiratory organs. Coën is of the opinion that stuttering is to be regarded as a secondary manifestation and result of another pathological condition of the organism, namely, of anomalous size of the respirations. He was led to this view by the observation that the disturbance is most noticeable in the formation of those sounds which require a greater immediate action of the respiratory organs,—hence in the mute consonants; while the disturbance of speech is rarely or never manifested in uttering vowel sounds. In the formation of the mute sounds the vocal fissure is widely opened; the atmospheric pressure in the cavity of the mouth is then equal to that in the lungs, and the apparatus of the mouth must be sufficiently firmly approximated to give resist-

ance to this pressure. In the stutterer the atmospheric pressure in the lungs is diminished in consequence of defective innervation and consecutive disturbance of function; the apparatus of the mouth is, on the contrary, normally innervated, hence also disposed to offer a vigorous resistance to the irregular atmospheric pressure of the respiratory organs. If the air under such circumstances has to overcome a marked resistance, then this occurs only tediously, and the sound is pronounced at one time with difficulty, at another weak, indistinctly.

A disproportion between the diminished atmospheric pressure and the normal activity of the closing organs then ensues, and only after great effort is the air-pressure in the lungs increased, the firm closure opened, and the sound produced vigorously. In this manner is also explained the well-known fact that stutterers pronounce vocals quite well; that they can sing, declaim, speak loudly and slowly, without their defect being in the least manifested.

Stuttering differs materially from stammering: the latter consists in the inability to pronounce certain sounds and words completely and correctly, which can only arise as a result of malformation of the organs of articulation. It differs from stuttering in that it persists under all circumstances, excludes nervous and spastic conditions, and is evident also in singing and declaiming. According to Coën, the primary affection of stuttering must be sought in a central affection of the oblongata or in a spinal irritation, or in a combination of these two pathological conditions, whereby the activity of the respiratory organs is interfered with as a result of the disturbed innervation; *i.e.*, the atmospheric pressure in the lungs is diminished, and the action of the diaphragm becomes irregular.

That mental affections and increased spinal irritability are the causes which may produce stuttering is shown in its instantaneous appearance during the age of puberty upon injuries to the head and spine, in severe nervous affections, and especially from strong and rapidly acting irritants upon the nervous system. Here also are classed defective nutrition, abnormal formation of the thorax, debility of the respiratory muscles,—conditions which are induced by the primitive affection.

The *treatment* recommended is a methodically applied gymnastics of the lungs and electricity. In order to increase the force of the lungs, a forced inspiration and expiration, interrupted at short intervals, should be practised; in this manner the slow innervation is quickened and the tonicity of the lung raised. In order to remove the disproportion between the diminished atmospheric pressure and the normal articulation-muscles, the patient is ordered to make a deep inspiration before pronouncing each word of some selected sentence, so that the column of air is compelled to enter with force into the thoracic cavity; this occurs best when the patient inspires deeply with the teeth firmly pressed together. Then the word is spoken loudly and slowly at regular beaten intervals. After some practice an inspiration need only be made after every second or third word.

The indications for the electric treatment consist, first, in strengthening the inspiratory muscles by galvanization or faradization of the branches of the phrenic nerve and of the cervical plexus supplying the respiratory muscles. A second indication consists in combating the spastic condition by strong voltaic alternations. At the same time, a general water-cure and forcible friction (Swedish Heilgymnastic) of the respiratory muscles act against the dynamic causes which increase the affection. By the hydropathic cure it is claimed that a more cheerful psychical mood of the patient is induced, during which the depressing evil is forgotten and the hope of a recovery given room, an influence not to be despised in the treatment even of stuttering.

SUCCESSFUL EXTIRPATION OF KIDNEY.

By Prof. SIMON, of Heidelberg. Translated from *Schmidt's Jahrbücher*

BY DR. WILLIAM ASHBRIDGE.

THE patient who was the subject of this operation was a woman, 46 years of age, who eighteen months previously had been operated upon for the removal of an ovarian cyst, in the performance of which, owing to adhesions, it became necessary to remove a large part of the uterus. At the same time the left ureter was cut so that the surfaces of the wound were constantly inundated with the urine from the kidney of that side.

In spite of this, the patient recovered, but in a lamentable condition, suffering from a fistula in the walls of the abdomen, into one side of which the vagina and the canal of the cervix uteri opened, into the other side a fistula of the left ureter. The entire secretion of the left kidney found vent partly through the fistula in the abdominal wall and partly through the vagina. Professor Simon now attempted to restore the continence of urine. This he endeavored to effect by two methods before resorting to extirpation of the kidney. Twice he attempted a plastic operation, which failed in both instances, owing to the constant flow of urine, and twice he cauterized the fistula with argenti nitras. This latter method had to be given up, owing to the urgent symptoms which followed the retention caused by it. Upon the failure of these attempts nothing remained but the extirpation of the kidney.

The operation was commenced by a cut through the skin and superficial parts, about four inches in length. This cut was made on the outer side of the sacro-lumbalis muscle, in a perpendicular direction, beginning at the eleventh rib, and carried down to the middle of the space between the twelfth rib and the crest of the ilium. The next step was the exposure of the kidneys, the guides being the twelfth rib and the edge of the sacro-lumbalis muscle. The various fasciæ of the part and the intervening muscular tissue having been cut through, the operator at length arrived at the gland lying in its bed of fat. The next step—the separation of the gland from its surroundings—is described as the most difficult; the operator has to work under the rib, and must be careful to use only the finger or blunt instruments, to avoid the danger of a profuse hemorrhage from an injury to the parenchyma of the kidney. All the parts entering into the hylus must be ligated, either altogether in one ligature, or divided into two portions with two.

The course of the wound towards healing presented nothing remarkable; an attack of erysipelas and two attacks of diphtheritic exudation on the surface were the only untoward circumstances.

The ligatures did not come away until the beginning of the sixth month; but long previously the patient had left her bed, and was performing the duties of nurse in a military hospital in the early part of the late Franco-Prussian war, and two years after the operation she was still enjoying uninterrupted good health.

Accurate observations on the urine were made during recovery, and Professor Simon concludes that the extirpation of one kidney has no perceptible influence on the health of the patient. He also thinks that the remaining kidney can increase in size, remain of a normal size, or even be exceptionally small.

In experiments made upon dogs he found a vicarious growth of the remaining kidney beginning a very short time after the extirpation.

[In the first number of the *Philadelphia Medical Times* there is an allusion to the above case, containing a promise from Prof. Simon of a full report. Of this report the above is an abstract.—ED. P. M. T.]

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

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SATURDAY, JULY 26, 1873.

EDITORIAL.

THE SURVIVAL OF THE FITTEST.

A CURIOUS case of the application of the principle of natural selection under artificial circumstances is now progressing in our city. As every one knows, until the last year or two we have suffered in Philadelphia from a plague of "measuring-worms," which even Egypt in her palmiest days might have envied.

Some enterprising genius suggested the importation of English sparrows. A diet of worms resulted,—a diet which ended our plague. But the pest is coming upon us in a new form. The caterpillar of the moth *Orgyia leucostigma* opens his eyes a little later in the season than his friends the measuring-worms; consequently, for meals he in former times found the luxurious leaf-banquets in our public squares looking like the remains of an over-night club supper, and—didn't prosper.

Thanks to his hairy coat, the sparrows don't take a fancy to him; and, consequently, the measuring-worms being put out of the way, and the leaves allowed to grow, he is prospering and rapidly multiplying under the stimulus of food, good, abundant, and cheap. At present, very many trees in this city have again put on the familiar, woe-begone look of old, hiding their misery with the merest tatters and shreds of leaves.

"But the new-comer doesn't drop on you!" Doesn't he, though? If he does not drop he crawls, or gets on some way or other; and the man who has felt his long hairs tickling his neck, struck for a fly, and found in his hand a bare and *bursted* carcass, on his shirt-collar a stain, and down his back a bunch of tickling hairs, will vote the "survival of the fittest" in its latest form an unmitigated nuisance.

In order that our readers may avenge us on some of the mothers and fathers of these pests, we add a description of the perfected individuals as they will appear shortly:

Females wingless, or with merely two little wings like scales on each shoulder. Males with large ashen wings, crowned by wavy, darker bands on the upper pair, on which, moreover, is a small black spot near the tip, and a minute white crescent near the outer hind angle.

WE call attention to the following circular. The work that Dr. Butler is engaged in is, we think, of national importance and interest, and we cordially recommend immediate compliance with his request:

"Circulars calling for information for the Medical Register and Directory of the United States are being rapidly sent out, and this portion of the labor will soon be completed. It is earnestly desired that the responses be as prompt and as full as possible. *It is important to physicians, who have any education or standing, that they appear properly on this record,* as the work will be one of permanent value and will be constantly referred to. The forms containing the Directory of the first set of eleven States and Territories (Alabama to Georgia, alphabetically, inclusive) are now in the hands of the printer, and there are but a few days in which information can be inserted in those pages.

"Officers of public medical institutions of *all kinds*, hospitals, asylums, dispensaries, colleges, medical societies, etc., are particularly requested to furnish us with lists, catalogues, announcements, etc., in order to give brief histories of these institutions, and for use in perfecting the Register and Directory in all its parts.

"It is intended that the work shall be exhaustive, and as nearly *correct* as may be, and it will be issued as speedily as possible; but the labor is immense, and the work is delayed by the want of promptitude in receiving replies to circulars and letters.

"S. W. BUTLER, M.D.,
"115 S. Seventh Street, Philadelphia, Pa."

DR. MORITZ HEINRICH ROMBERG died of chronic cardiac disease on the 16th ult. He was born at Meiningen, and graduated in medicine at Berlin in 1817. Dr. Romberg's life appears to have been a laborious one, since he held the position of medical officer to the poor of Berlin from 1820

to 1845, and in 1830 and 1836 he was director of the cholera hospital in the same city. In 1838 he was elected extraordinary professor, and in 1845 ordinary professor, to the university at which he graduated. He is an instance of a physician successful in a special branch of medicine although doing a more or less general practice and writing upon other subjects. He was the author of a work on cholera, and of various contributions to the periodical press, but will be chiefly remembered on account of his treatise on the "Nervous Diseases of Man," which was first published, in three parts, in 1840, 1843, and 1846, and was in 1853 translated into English by Dr. Sieveking for the late Sydenham Society. At the date of its appearance it was undoubtedly the best book extant upon the subject upon which it treats.

AS the importance that India is assuming as a tea-producing country does not appear to be generally known, the following table of English imports will probably surprise some of our readers. It is taken from the *Food Journal:*

Year.	China and Japan.	India.
1864	120,284,000 lbs.	3,285,000 lbs.
1865	120,345,000 "	2,510,000 "
1866	120,213,000 "	5,133,000 "
1867	122,682,000 "	7,084,000 "
1868	118,480,000 "	8,132,000 "
1869	145,472,000 "	10,522,000 "
1870	141,500,000 "	13,149,000 "
1871	134,000,000 "	15,500,000 "
1872	147,000,000 "	17,164,000 "

DR. EDWARD WARREN, late professor of Surgery in the College of Physicians and Surgeons, Baltimore, Md., and most favorably known to the profession by reason of his testimony in the celebrated Wharton-Ketchum trial, has accepted the position of "Surgeon to the Staff of the Khedive of Egypt," with the rank of colonel, and the privilege of engaging in private practice in that country. His address is Cairo, Egypt, where he requests correspondence to be addressed. We cordially recommend Dr. Warren to the friendship and professional patronage of our countrymen who may be visiting Egypt.

IN consequence of the illness of Mr. Erichsen, of London, having assumed a somewhat chronic character, he has decided on withdrawing from all active professional work for some time, and taking that complete rest which is considered necessary for his recovery.

DR. H. C. WOOD, JR., desires us to state that he is no longer connected with the *Quarterly Journal of New Remedies*, published by William Wood & Co., of New York.

CORRESPONDENCE.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR:—The admirable suggestion of my colleague, Dr. William Pepper, in regard to injecting the veins of patients suffering from the collapse of cholera with a warm solution of bromide of potassium, promises so much in the treatment of this terrible disease that I feel anxious it should be tried on a large scale, under the most favorable circumstances. I therefore beg leave to propose to the profession, through your columns, a slight modification of the strength of the liquid Dr. Pepper recommends, by which it shall correspond to the three-quarter per cent. salt solution, so constantly and successfully employed by microscopists as an indifferent medium for the examination of the blood and likewise all the tissues it normally bathes. As the result of numerous experiments performed yesterday and this morning, I find that a fluid composed of fifty-five grains of bromide of potassium (or bromide of ammonium, which might be preferable in some cases of the greatest prostration), and a pint of water, has obviously under the microscope a much less marked effect upon both the red and white corpuscles of human blood than is produced by stronger solutions, such as that of grs. xv to f ℥j.

Any one who has studied the rapid changes which occur in the red disks and white globules by the osmosis of denser or rarer fluids with which they come in contact, as described in my papers upon the structure of those cellular elements, published in the Transactions of the American Medical Association, will appreciate the importance of accurately regulating the strength of the solutions employed.

Very respectfully,

JOS. G. RICHARDSON, M.D.

1620 CHESTNUT STREET, July 16, 1873.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JUNE 12, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. H. LENOX HODGE exhibited a *head and neck of the femur*, removed by excision, at the Children's Hospital, from a boy suffering from coxalgia. The operation was done this day, June 12.

The child is about eight years old. He has suffered from disease of the hip for three years. The head and neck of the femur are almost entirely absorbed. A

small nodule of cancellated structure is all that remains of the head. The neck is exceedingly shortened, and is diseased throughout. In this case there were bands of cartilage binding the femur to the sides of the acetabulum. These bands existed both on the exterior and in the interior of the joint.

Dr. WILLIAM PEPPER remarked upon the great difference in the mode and extent of the destruction of bone both in diseases resembling coxalgia and in others thoroughly unlike it, but suggested that in all instances there must be some solvent which removes the inorganic matter, and that when the bone has reached the condition of cartilage it undergoes softening. It was interesting to notice that there was here a tendency to the formation of new bone; and he desired to know of Dr. ASHHURST and Dr. HODGE whether they had frequently noticed a tendency to the development of osteophytes in this disease.

Dr. HODGE replied that, with regard to the formation of new bone, this was the only case of those in which he had excised the head of the femur that he had observed any tendency to it. Here there were bands of cartilage which in places were almost as hard as bone, and therefore difficult to cut with the knife. In no other case had he observed new bone or cartilage.

As regards the absorption of bone, this specimen exhibits what appears to be the usual course. First the articular cartilage disappears, then the compact substance, then the cancellated structure. In these cases there appears to be a far greater tendency to disease on the lower surface of the neck than on the upper. In extensive disease of the head of the femur, and of the lower surface of the neck, the upper surface of the neck is often healthy.

Dr. PEPPER said that the lower part of the neck of the femur was perhaps longer submerged in pus.

Dr. HODGE replied that generally upon excision of this joint none or very little purulent matter is found.

Dr. JOHN ASHHURST said that the seat of greatest destruction in hip disease varied with the particular part of the joint which was primarily implicated: thus, when the disease originated in the upper portion of the femur, it was easy to understand that the greatest destruction would be seen in the neck of the bone, and especially at its lower part, where the ligamentous structures were less dense than they were elsewhere; when the synovial membrane was first affected, the loss of substance would be chiefly observed on the convexity of the caput femoris; while in acetabular coxalgia, on the other hand, the pelvis would be most affected, and the thigh-bone only secondarily involved.

Natural efforts at repair were, Dr. Ashhurst said, less frequent in the hip than in the knee and elbow, where it was not uncommon to find anchylosis in one part of the joint coexisting with progressive caries in another. The process in these cases was properly called caries, or ulceration of bone, the term "interstitial absorption," as used by Paget, being more suitably reserved for that loss of substance, without suppuration, which was more common in the spine than in the articulations of the extremities. There was, no doubt, in either case a process of softening and conversion of bone into granulation-tissue, which might break down with suppuration or might undergo a retrograde change and lead to the formation of new bone.

Dr. R. M. BERTOLET said that the subject of the mode of absorption of the compact layers of bone-structure had been recently investigated by Wegner, of the Berlin Pathological Institute; that the important factor in the pathological process of bone-resorption seemed to be the myeloplaxes, or giant cells.

In a series of cases of rarefaction and absorption of the vitreous layer of the bones of the skull in consequence of diminution of the intra-cranial space from various causes, such as hydrocephalus, abscess, tumor, etc., upon examining microscopically the plastic layer which is always found covering the outer surface of the dura mater immediately beneath the points of absorption, Wegner unexpectedly discovered imbedded in a hyaline mass numerous multinuclear so-called giant cells freely anastomosing with one another. Lacunæ and depressions were found in the overlying bone-structure, corresponding in size and shape with the variously shaped myeloplaxes beneath; so that, no doubt, the resorption is brought about by the growth of successive layers of these cells.

The origin of these giant cells seems to be from a proliferation of the connective-tissue cells of the sheaths of the blood-vessels which exist in the surrounding vascular structure. Observations made upon other portions of the skeleton showed that in all cases of normal or pathological bone-absorption there is always present a proliferation of the cellular elements of the sheaths of the neighboring vessels, be they derived from the dura mater, periosteum, or medullary substance; in other words, giant cells are necessary for the resorption of bone.

REVIEWS AND BOOK NOTICES.

A DICTIONARY OF PHARMACEUTICAL SCIENCE. By H. V. SWERINGEN. Philadelphia, Lindsay & Blakiston, 1873.

We have very little to say about this book, either for or against it, simply because all our spare time has been spent in trying to imagine of what use it can be to any one—why or wherefore it was created. Time spent, too, in vain: we give up the conundrum. The work consists of brief definitions of terms, accounts of preparations, formulæ, etc. Possibly it may be of value to the apothecary's apprentice; but, so far as the medical profession is concerned, we doubt the judgment of the publishers. Yet who can tell? The springs of the pecuniary success of books seem to us, like sundry other things, past finding out.

CHEMISTRY: GENERAL, MEDICAL, AND PHARMACEUTICAL: including the Chemistry of the United States Pharmacopœia. A Manual on the General Principles of the Sciences and their Applications to Medicine and Pharmacy. By JOHN ATTFIELD, Ph.D., F.C.S., Professor of Practical Pharmacy to the Pharmaceutical Society of Great Britain, etc., etc., etc. Fifth Edition, Revised from the Fourth (English) Edition by the Author. Philadelphia, Henry C. Lea, 1873, pp. xv., 606.

The favorable opinion which we expressed on the appearance of the previous edition of this deservedly popular manual has been indorsed on all sides, and to such good purpose that this fifth edition has been called for, and has been specially prepared by the author for the American student, by whom we are sure it will be thoroughly appreciated. It contains some seventy pages more than its predecessor, and the chapter on the general principles of Chemical Philosophy has been rewritten and somewhat extended. In every way the work is worthy of its established reputation; and the appearance of this American edition does credit to the enterprise of its publisher.

THE FIRST ENGLISH OBSTETRICAL WRITER.—The first English midwife who appeared as an obstetrical writer was Mrs. Jane Sharp, of London, whose work was published in 1671, under the name of the "Midwives' Book,"—a duodecimo of 418 pages.—*N. Y. Med. Record.*

SELECTIONS.

RUPTURE OF THE JEJUNUM, FROM A FALL, IN A GIRL ELEVEN YEARS OF AGE.

BY E. G. HOLLAND, M.D.,

London.

H. P., described as a delicate, lively, and "fly-away" child, fell, at 4 P.M., and struck the umbilical region forcibly against the edge of the stairs. She uttered a sharp cry, got up, walked up-stairs alone, vomited the contents of the stomach untinged with blood, complained that she could not draw her breath, and lay down and slept for half an hour. On awaking, she got up, walked about, talked freely, and, though seeming faint, made no complaint of pain. At 9 P.M. she went to bed, without supper, and slept soundly nearly all night. At 8 A.M. she walked in her night-dress to an adjoining room, and, without complaint of pain, asked for water and ice. At 12, she walked alone down-stairs and lay down on some chairs, and, complaining a little of pain, had some hot flannels applied, but requested them to be removed on account of the "weight." At 4 P.M., for the first time, she asked for something to eat, and, after taking a few mouthfuls, vomited, fell back pale, and died without movement.

At the necropsy, thirty-six hours after death, the abdomen was found to be distended with flatus and fluid, and the umbilical region discolored by bruising. The peritoneal cavity was filled with a sero-flaky fluid, deeply tinged with bile. The peritoneum generally was minutely injected, and more or less universally covered with soft lymph. The jejunum was ruptured for nearly half of its circumference, twelve inches from the pylorus, and presented a bruised appearance on each side of the rupture. On cutting open the gut, it was found healthy, and its mucous membrane upraised by extravasated blood in the neighborhood of the rupture. There were no adhesions externally around the rupture, no thickening of the edges, and the latter dovetailed when laid side by side.

Comments.—The interesting features of this case are —first, the slight cause; secondly, the apparent absence of any severe suffering or shock, so that the friends did not consider her ill enough to require medical attendance until the fatal syncope set in, twenty-four hours after the injury; thirdly, the sudden termination, with vomiting, after taking food.—*British Medical Journal.*

GLEANINGS FROM OUR EXCHANGES.

Detection of the Biliary Acids in Normal Urine.—Prof. Vogel gives the following simple process for the detection of the biliary acids in normal urine (*Fres. Zeit.*, 1872, No. 4; from *Tagebl. der* 45. *Versamml. deutsch. Naturf. u. Aerzte in Leipzig*, No. 5, p. 75). Four or five ounces of the urine should be acidulated with a few drops of hydrochloric acid, and shaken for at least an hour with chloroform. The chloroform, which has become brown and turbid, can be separated from the urine by decantation, or with a pipette, and rendered clear by shaking with six or eight centimetres of absolute alcohol. The mixture is then to be filtered, and the chloroform separated from the alcohol by means of a pipette, and allowed to evaporate on a watch-glass. If this residue, which has a bitter taste, be treated with sugar and concentrated sulphuric acid, a violet color is produced, first around the grains of sugar; this color becomes changed to a brown in fifteen to thirty minutes (Pettenkofer's test).

In this manner Vogel found a small amount of the biliary acids in the urine of eight healthy individuals, and also in that of persons suffering from various diseases. In fact, no specimen examined failed to give the reaction for the biliary acids, when treated in this manner; and the color was more strongly marked in the urine of patients with disease of the liver (three cases of catarrhal icterus, one of carcinoma of the liver, and one of cirrhosis).

In order to be sure that this reaction was not caused by other substances, which may give a somewhat similar color with sugar and sulphuric acid (such as albumen, muscular fibre, various resins and oils, phenol, etc.), Dragendorff evaporated a litre of the urine of ten healthy individuals, varying in age from eight to fifty-five years, extracted the residue several times with alcohol, evaporated this, and dissolved again in water. This solution was precipitated with acetate of lead, dissolved in alcohol, and decomposed with sodic carbonate, carbonate of lead and glycocholate of sodium being the products of the decomposition, the latter remaining dissolved in the alcohol. From this solution the glycocholic acid was isolated, and its identity confirmed by Pettenkofer's test.

Not satisfied with this result, Dragendorff, by working with a large amount of urine (100 litres) in the above way, succeeded in obtaining a sufficient quantity of the acid to enable him to purify it by recrystallization and make an ultimate analysis of it, thereby proving beyond a doubt that the substance which thus reacts with Pettenkofer's test in normal urine is composed of the biliary acids, and that these do, under normal circumstances, find their way into the general circulation in small amounts, and are partially eliminated by the kidneys.—*Boston Medical and Surgical Journal.*

Separation of Carbolic Acid from Urine (E. Salkowski: *Fres. Zeitsch.*, No. 3, 1873; from *Archiv d. Physiol.*, Bd. v., p. 353).—The urine is made strongly acid with tartaric acid, and distilled until about one-half of the liquid has passed over. The distillate should then be shaken twice with ether, the ether decanted, and allowed to evaporate. The residue can then be treated with a little water, filtered if necessary, and Lex's test (see below) applied.

In 200 cubic centimetres of normal urine, no carbolic acid can be detected; but if 0.1 gramme be added (= 1 part in 2000) an intense blue coloration is produced, and this color can be perceived when the urine contains only one part in 4000.

Lex's test for carbolic acid is performed with ammoniac hydrate and calcic hypochlorite (chloride of lime). To the suspected fluid is added about one-fourth of its volume of ammonia-water, and then a few drops of a saturated solution of hypochlorite, and the mixture gently warmed to boiling. If much carbolic acid is present, a blue color appears immediately; but if only a minute amount, it does not appear until about fifteen minutes have elapsed. Too much calcic hypochlorite, or a too rapid application of heat, prevents the reaction. The fluid which has once turned blue may become colorless by standing; but the color can be restored by the addition of a few more drops of the hypochlorite. If the fluid is acidulated with sulphuric or hydrochloric acid, the blue changes to a red color.—*Boston Med. and Surg. Journal.*

The Best Catheter for Enlarged Prostate (by Prof. E. Andrews).—It seems not to be generally known, while men are inventing costly and complicated silver catheters for cases of enlarged prostate, that there is already in existence a very simple and inexpensive one, which is as near to absolute perfection as

human inventions usually get. I refer to Mercier's *sonde coudée*.

For cases of enlarged prostate, Mercier's *sonde coudée* is a splendid instrument. It slips into the bladder without resistance or pain, when every effort with the ordinary silver instrument only brings blood. The patient himself can use it with ease, safety, and comfort, and thus prevent much of the distress and misery which old men often suffer from retention of urine. It is not only in cases of enlarged prostate that this instrument is useful; it is superior to any other for nineteen-twentieths of the male patients by whom a catheter is required, and will, when it is better known, almost totally supplant the other forms now in use.

The *sonde coudée* is very simple. It consists of a black, flexible catheter, having two peculiarities:

1. Its walls are about twice or thrice thicker than the ordinary catheter, so that it possesses a mixed flexibility and firmness which enables it to conform easily to the curves of the urethra, and yet it requires no wire when inserted.

2. Half an inch from the tip it is bent forward at an obtuse angle. This curve is the peculiarity which enables it to slip past the overhanging central lobe of the prostate. Its extremity strikes the lobe obliquely, lifting it a little, while the flexibility of the instrument allows it to bend forward and evade the obstacle with the greatest ease.—*Chicago Medical Examiner.*

Local Use of Chloral Hydrate in Soft Ulcers and Ulcerated Buboes.—In an article published in the April number of the *Giornale Italiano delle Malattie Venerie*, Dr. De Paoli gives his experience of the local action of chloral hydrate in the above cases, such as was exhibited in the Clinique for Venereal and Skin Diseases of Bologna. Four cases are related, in which large ulcerated buboes were highly benefited in their last stages by the application of a solution of chloral hydrate (ten parts of chloral to thirty of water). The healing process was remarkably regulated and hastened by the application. The author thinks that in all sores with abundant suppuration and want of tone chloral is of the greatest use, and that its employment may be beneficially extended, as a slightly exciting and antiseptic agent, to suppurating wounds, and especially gunshot wounds. He states that Professor Gamberini has applied the same solution with marked results to the soft ulcers of prostitutes, especially during the later period of cicatrization, the virulent power and suppuration of the sores being considerably diminished, whilst auto-inoculation of the sores in other parts was not observed in the patients treated. He suggests that chloral hydrate may be a good substitute in certain cases for nitrate of silver and iodoform, and concludes, in summing up his paper, "that it diminishes the virulence of sores, has the advantage of not irritating the inguinal glands, and removes the offensive smell which proceeds from ulcers, especially those of the female genitals."—*London Lancet.*

A New Substitute for Quinine.—Among the specimens of drugs exhibited in the International Exhibition in Vienna is the *Echites scholaris*, a plant of the natural order *Apocyneæ*. It is especially abundant at Luzon, in the province of Batangar, in the Philippine Islands; and its bark has long been used by the natives, under the name of *dita*, as a remedy in all kinds of fever. Herr Gruppe, an apothecary in Manilla, has found in it an uncrystallizable, very hygroscopic, bitter substance, to which he has given the name of *ditaïn*. The principal Spanish physician in Manilla, Dr. Miguel Zina, has given it to numerous hospital patients under his care, and has found that ditaïn is not only a perfect substitute for quinine, but that its use is not followed by the disagreeable results which often attend the use of quinine. It is given in the same dose and in the same way as quinine. In many cases, also, its activity as a tonic was well marked. The ditaïn is prepared from the bark, in the same way as quinine from cinchona; 100 grammes of bark give 2 grammes of ditaïn, 0.85 gramme of sulphate of lime, and 10 grammes of a perfectly inactive extractive matter. A single tree yields a large quantity of bark without injuring its growth. It is calculated that the price of ditaïn in Europe would be about 160 francs per kilo (3*s.* 6*d.* to 7*s.* per ounce).—*The British Medical Journal*, June 7, 1873.

Amaurosis resulting from Poisoning with Morphia.—A case of this character is reported by Dr. W. Wagner, of Odessa, in *Schmidt's Jahrbücher* for 1873. The patient, a man 32 years of age, suffered from periodical attacks of vomiting, for the relief of which he had recourse to injections of morphia.

Having been attacked by his disease while upon a journey, during five days, he had prepared solutions containing 1.92 grammes of the acetate of morphia; but it is not probable that he used the whole amount. Dr. Wagner found the patient drowsy, with a small and slow pulse, both pupils contracted and fully immovable. The arteries of the retina were very much contracted; the veins normal. The light of a brightly-burning lamp was not perceived. In this state the patient remained for two days. Further observation was prevented by the removal of the patient by his wife without the permission of the doctor.

Chronic Pharyngitis, and its Cure by the Galvano-Cautery (E. Michel: *Deutsch. Zeitschrift für Chirurgie*, Band ii., 1872, 154–164).—The larger and smaller circumscribed hyperplasiæ of the mucous membrane which characterize granular pharyngitis are with difficulty healed by the ordinary methods resorted to (nitrate of silver). The author cauterizes quite superficially these granular enlargements with a galvano-cautery, and claims to have effected a cure in all cases with but three or four applications. The galvano-cautery thus operates more quickly, and at the same time is less painful, than the nitrate of silver and other caustics. For the lateral portions of the naso-pharyngeal space the laryngeal or rhinoscopic mirror must be employed.

Development of the Frontal Bone (*Reichert u. Du-Bois Reymond's Archives*, 1872, p. 649).—According to H. Jhering, the frontal bone, in addition to arising from two main centres, presents a number of accessory points of ossification. These are six in number, and are distributed as follows: two confined to the nasal spine; one placed on each side of the median line between the orbital and nasal portions of the bone; and one, which is described in detail, situated at the external lateral process. The last-mentioned is the most important of the accessory centres; since it occasionally remains distinct from the frontal up to the first or second year, and would appear to be homologous with the post-frontal bone of the skull of lower mamals.

Presence of Alcohol in the Human Urine.—After having shown that urine on putrefying produces alcohol, M. Béchamp has sought to discover alcohol in the urine of persons who had previously been subjected to a *régime* of abstinence from wine and alcoholic drinks. In the urine collected in these conditions, and in which fermentation had been prevented by the addition of a little creasote, M. Béchamp has found enough alcohol to be able to set it on fire. In one of the experiments there was enough alcohol in two litres of urine to be determined by the alcoholometer. The author believes that the liver produces alcohol physiologically.—*London Lancet; from Gazette Médicale de Bordeaux.*

ATROPIA SUBCUTANEOUSLY IN CHOLERA.—Dr. Hodgen mentioned (Proceedings St. Louis Medical Society, June 7, 1873) a plan of treatment pursued by him in a few cases at the close of the epidemic of 1866, with results considered sufficiently encouraging to merit further trial. In the *stage of collapse*, the doctor injected subcutaneously from a sixtieth to a thirtieth of a grain of sulphate of atropia, and injected freely into the bowels warm water with a little salt in it; reaction and convalescence followed in over half the cases without fever. The doctor also referred to the importance of promoting the action of the kidneys as early as possible, by diuretics and warm poultice or fomentation over the kidneys, not to eliminate the cholera-poison, but to obviate uræmia.—*St. Louis Medical Journal*, July, 1873.

ACTION OF THE INTERCOSTAL MUSCLES.—Dr. Thomas Dwight (*Boston Medical and Surgical Journal*, 1873) has reviewed the literature of this much-discussed subject, besides investigating the function of the intercostal muscles in the dog. He concludes that the theories of Hutchinson and Hamburger are to be modified. The intercostals have little influence on ordinary respiration; they are for the most part passive structures, though both internal and external muscles at times raise the ribs, and by sudden action may be made to perform the part of accessory expiratory muscles. Both sets in the lower part of the chest may tend to draw the ribs downward. Slight causes may modify the action of any part of them.

POISONING BY ALUM.—A fatal case of poisoning by the ordinary potassium alum is reported in full by Dr. Hiequet (*Ann. d'Hygiène*, January, 1873), with the chemical analysis of the tissues, and remarks upon the toxicology of alum. It was caused by the accidental ingestion of about an ounce instead of Epsom salts. The symptoms and lesions produced were those of a corrosive acid poison, there being found destruction of the epithelium in the mouth, throat, œsophagus, and stomach, two gangrenous patches in the small intestine, and also extensive peritonitis.—*Boston Medical and Surgical Journal.*

DEATH FROM HEAT-STROKE IN A VAPOR-BATH.—An inquest was held at Stratford, Essex, a few days ago, on the body of a man who died while taking a vapor-bath in the public bath-rooms of the locality. The temperature of the bath at the time of the occurrence was not, according to the evidence of the proprietor of the rooms, above 110°; but Drs. Whitehouse and Kennedy, who had examined the body soon after death, expressed their belief that it could not have been less than 200°. The jury returned a verdict of "Death from coma, accelerated by the use of an over-heated bath."—*London Lancet.*

MISCELLANY.

A DOCTOR'S STORY.

BY W. M. CARLETON.

I.

Deacon Rogers he came to me;
"Wife's a-goin' to die," said he.

"Doctors great, an' doctors small,
Haven't improved her any at all.

Physic and blister, powders and pills,
And nothing sure but the doctor's bills!

Twenty old women with remedies new
Bother my wife the whole day through;

Sweet as honey, or bitter as gall,—
Poor old woman, she takes 'em all:

Sour or sweet, whatever they choose,
Poor old woman, she daren't refuse.

So she pleases whoe'er may call,
An' death is suited the best of all.

Physic and blister, powder an' pill,—
Bound to conquer, and sure to kill!"

II.

Mrs. Rogers lay in her bed,
Bandaged and blistered from foot to head.

Bandaged and blistered from head to toe,
Mrs. Rogers was very low.

Bottle and saucer, spoon and cup,
On the table stood bravely up;

Physic of high and low degree,
Calomel, catnip, boneset tea:

Everything a body could bear,
Excepting light and water and air.

III.

I opened the blinds; the day was bright,
And God gave Mrs. Rogers some light.

I opened the window; the day was fair,
And God gave Mrs. Rogers some air.

Bottles and blisters, powders and pills,
Catnip, boneset, syrups and squills,

Drugs and medicines, high and low,
I threw them as far as I could throw.

"What are you doing?" my patient cried;
"Frightening Death," I coolly replied.

"You are crazy!" a visitor said;
I flung a bottle at her head.

IV.

Deacon Rogers he came to me;
"Wife is a-comin' around," said he.

"I re'lly think she will worry through:
She scolds me just as she used to do.

All the people have poohed and slurred—
All the neighbors have had their word;

'Twas better to perish, some of 'em say,
Than be cured in such an irregular way."

V.

"Your wife," said I, "had God's good care,
And his remedies,—light and water and air.

All of the doctors, beyond a doubt,
Couldn't have cured Mrs. Rogers without."

VI.

The Deacon smiled, and bowed his head;
"Then your bill is nothing," he said.

"God's be the glory, as you say!
God bless you, Doctor! good-day! good-day!"

VII.

If ever I doctor that woman again,
I'll give her medicine made by men.

—*Maine Farmer.*

THE SHAH OF PERSIA AND THE CONVENTION OF GENEVA.—We are authorized to state that the visit of his Majesty the Shah of Persia to this country has resulted in an act which will be highly agreeable to lovers

of humanity. Through the interpreter, the Shah expressed the warm interest which he felt in this subject, and his desire to give diplomatic adhesion to the convention of Geneva, for neutralizing the sick and wounded in war, and the persons and materials provided for their succor. The convention has already been signed by all European monarchs, including the Sultan of Turkey, who gave his adhesion in 1865. The protocol of the convention was left open in 1864 at Bern. The adhesion of the Shah will, therefore, be addressed to the High Federal Council of Switzerland. The Shah is already familiar with the emblem and its present merciful significance among European troops in time of war. The red cross was flying, at the review at Windsor, over the ambulance in the rear, which was drawn up facing the saluting-point. In Austria, in Switzerland, and in Sweden, all medical officers and the hospital staff corps bear the *brassard* on parade and during movements of troops in peace, in order to popularize the emblem and to make its meaning familiar. The Shah is the first purely Asiatic monarch who has given his adhesion to the convention and to the merciful principles which it establishes. M. Henry Dunant, who has devoted the best years of his life and has sacrificed all his private interests to the development of the humanitarian idea with which he was inspired by the sight of the horrors of Solferino, must be earnestly congratulated at seeing the fertile idea, which has taken firm root throughout Europe and has borne noble fruit there, now planted in the soil of Asia. *It is strange that, of all civilized powers, the United States of America has alone withheld its assent from the convention.—British Medical Journal.*

Vehicle for Chloral Hydrate.—J. G. Plumer, in *London Phar. Jour. and Trans.*, recommends, as the best vehicle for administering chloral hydrate, the syrupus flor. aurantii of the British Pharmacopœia. We have ourselves found nothing to answer better than essence of peppermint for disguising the peculiarly acrid and nauseous taste of the drug.—*Detroit Review of Medicine.*

"Smart.—An American paper says, 'Massachusetts is noted for two things: intelligence and patent medicines.' We presume the intelligence is displayed in selling, not in taking, the physic."—*Fun.*

The Regents of Michigan University have decided not to appoint the homœopathic professors, as ordered by the Legislature.—*The Clinic.*

Cholera of a malignant type has appeared at Cawnpore, and smallpox rages at Lucknow.—*London Lancet.*

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JULY 15, 1873, TO JULY 21, 1873, INCLUSIVE.

Woodhull, A. A., Assistant-Surgeon.—To report in person to the Commanding General, Department of the South, for assignment to duty. S. O. 143, A. G. O., July 15, 1873.

Smart, Charles, Assistant-Surgeon.—When relieved by Assistant-Surgeon Meacham, to report in person to the Commanding General, Department of the Platte, for assignment to duty. S. O. 143, c. s., A. G. O.

Miller, George McC., Assistant-Surgeon.—Assigned to duty at Camp Grant, Arizona Territory. S. O. 51, Department of Arizona, June 20, 1873.

Lippincott, H., Assistant-Surgeon. — When relieved by Assistant-Surgeon King, to comply with orders received from War Department. S. O. 125, Department of the South, July 12, 1873.

Meacham, Frank, Assistant-Surgeon. — Assigned to duty at Fort Monroe, Virginia. S. O. 143, c. s., A. G. O.

De Witt, C., Assistant-Surgeon.—Assigned to duty at the Presidio of San Francisco. S. O. 86, Department of California, July 11, 1873.

Yeomans, A. A., Assistant-Surgeon.—Assigned to duty at Fort Garland, Colorado Territory. S. O. 108, Department of the Missouri, July 17, 1873.

King, William H., Assistant-Surgeon.—Assigned to duty at Atlanta, Georgia. S. O. 125, c. s., Department of the South.

Weekly Return of Deaths and Interments in Philadelphia for the Week ending Saturday, July 19, 1873.

Diseases.	Adults.	Minors.	Diseases.	Adults.	Minors.
Abscess	1	...	Epilepsy	1	...
Albuminuria	1	1	Erysipelas	...	1
Anæmia	...	1	Fever, Scarlet	...	6
Apoplexy	4	...	" Typhoid	5	2
Asphyxia	...	3	" Typhus	...	1
Burns and Scalds	1	1	Heart Clot	...	1
Cancer of Breast	1	...	Hemorrhage from Lungs	2	...
" Liver	1	1	Hooping-Cough	...	2
" Uterus	2	...	Inanition	...	9
Casualties	4	3	Inflammation of Brain	1	10
Cerebro-Spinal Meningitis	...	5	" Bronchi	1	2
Cholera Infantum	...	126	" Lungs	2	6
" Morbus	9	...	" Peritoneum	...	2
Cirrhosis of Liver	2	...	" Stomach & Bowels	6	11
Congestion of Brain	2	7	Jaundice	...	1
" Lungs	...	1	Mania a potu	3	...
Consumption of Lungs	37	7	Marasmus	2	15
Convulsions	...	14	Measles	...	1
" Puerperal	1	...	Murder	1	...
Cramps	...	1	Old Age	4	...
Croup	...	1	Paralysis	9	...
Cyanosis	...	1	Rheumatism	1	...
Debility	12	14	Smallpox	...	1
Diarrhœa	4	8	Softening of Brain	2	...
Diphtheria	...	1	Still-Born	...	23
Disease of Brain	...	1	Stricture of Bowels	1	...
" Heart	4	2	Suicide	1	...
" Kidneys	3	1	Sunstroke	1	...
" Ovaries	1	...	Syphilis	...	2
" Stomach	1	...	Tabes Mesenterica	...	1
Dropsy	2	...	Tetanus	1	1
" of Brain	...	7	Ulceration of Stomach	2	...
" Kidneys	...	1	Unknown	3	...
Drowned	4	2			
Dysentery	2	1			
Effusion on Brain	...	3			
			Totals	148	312

Meteorological Observations taken at the Signal Office, Philadelphia, during the Week ending Saturday, July 19, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain. In.
July.				
Sunday 13th	30.27	71	Fair, Clear.	.....
Monday 14th	30.09	79	Clear, Fair.	.20
Tuesday 15th	29.97	81	Clear, Cloudy.	.....
Wednesday....16th	29.99	79	Fair.	.....
Thursday....17th	29.82	81	Cloudy, Fair, Clear.	.04
Friday 18th	29.87	74	Fair, Cloudy.	.59
Saturday 19th	29 90	72	Fair, Cloudy.	.43
Means	29.99	77	....	1.26

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

SATURDAY, AUGUST 2, 1873.

ORIGINAL COMMUNICATIONS.

AN INVESTIGATION INTO THE ACTION OF CONVULSANTS.

BY DR. H. C. WOOD, JR.,

Clinical Lecturer on Diseases of the Nervous System to the University of Pennsylvania.

THERE are certain drugs and poisons acting upon the nerve-centres, which give rise to a lessening of reflex activity and to paralysis. There are others which increase the reflex activity and produce convulsions. Those substances which lessen the functional activity of the cord are known as *spinal depressants*, and those which enhance it are known as *spinal stimulants*. So far the matter is plain ; but there are other drugs, universally considered to be *spinal depressants*, which produce both convulsions and lessening of the reflex activity,—which, in other words, apparently diminish, and at the same time increase, the spinal functions. This seems at first rather odd, and, indeed, the apparent paradox has led some students into believing that such drugs as aconite and veratrum viride really excite the spinal centres.

It has occurred to me that the convulsions seen in these cases may have their origin in the brain, and not in the spinal cord. If this be so, it is evident that section of the spinal cord should prevent the occurrence of any convulsive movements below the point of division. If the convulsions are of spinal origin, it is equally evident that the previous division of the cord would have no influence in interrupting the spasms.

The following experiments were instituted to test this matter. In the first, *strychnia* was used, so as to afford a point of comparison. The drugs were all administered hypodermically.

Experiment 1.—A full-grown cat. The cord was cut in the upper dorsal region.

TIME.	DOSE.	REMARKS.
10 A.M.	gr. ss.	
10.4 "		Slight convulsive twitchings in hind legs.
10.6 "		Clonic spasms, with rigidity, in hind legs. Front legs relaxed.
10.10 "	gr. ss.	Constant convulsions in posterior portion of body. Anterior part quiet.
10.14 "		Facial convulsions, with foaming at mouth.
10.16 "		Front legs convulsed for the first time.
10.20 "		General convulsions.

It is a noteworthy fact in this experiment that the portion of the spine below the point of section was affected by the convulsant much earlier than the part still in connection with the brain. This certainly affords strong confirmation of Setschenow's theory of an inhibitory reflex centre at the base of the brain.

The experiment also accords with the universally received fact that convulsions of strychnia are of spinal origin.

The next substance studied was *aconite*.

Experiment 2.—A powerful male cat. At 4.30 I cut the cord in the upper dorsal region. The poison used was tincture of aconite root.

TIME.	DOSE.	REMARKS.
5.15	15 minims.	
5.31	20 "	
5.45	25 "	
5.48		The cat has just had a violent convulsion, which was confined exclusively to the head and neck.
5.55	35 "	
6.5		The cat has had a number of very violent convulsions, all of them exclusively confined to the portion of the body above the point of section.

Experiment 3.—A cat was killed by the aconite, as in the preceding experiment, and had a number of convulsions exclusively confined to the part of the body above the section of the cord.

The next poison employed was *prussic acid*, U.S.P.

Experiment 4.—A cat with the spine cut in the middle of the dorsum.

TIME.	DOSE.	REMARKS.
0 minutes.	f3ij.	
4 "		Convulsive movements of head and legs.
15 "	f3j.	There have been incessant convulsive movements of the head and fore legs, the hind legs remaining perfectly quiet.
20 "		Perfect unconsciousness, muscular relaxation, and anæsthesia of the cornea.
27 "		Dead.—During the last five minutes of life the hind legs were drawn slowly up upon the body, and very slowly extended, several times ; the same thing happened, but not consentaneously, in the front legs.

Experiment 5.—A small cat with the dorsal spine cut. A f3ss of officinal prussic acid was injected hypodermically. In less than a minute a violent, prolonged convulsion came on, confined to the anterior extremities, and apparently accompanied with unconsciousness. After this had gone off, there was the same peculiar stretching of the hind legs, as well as of the front legs, seen in the previous experiment. In another moment the animal was dead.

The next substance used was *veratrum viride*. Unfortunately, I have been unable to procure any of the alkaloids, and was consequently forced to use the fluid extract.

Experiment 6.—A powerful male cat, with the cord cut in the upper dorsal region.

TIME.	DOSE.	REMARKS.
	20 minims.	
20 minutes.		Violent convulsions, confined to that part of the body above the section.
80 minutes.		There have been a great number of violent convulsions, which have been confined to the upper portion of the body, affecting exclusively the front legs, neck, and head.

Commercial *veratria* was next employed.

Experiment 7.—A large female cat; the cord cut in the upper dorsal region.

TIME.	DOSE.	REMARKS.
4.21 4.35 4.50	3 grains. 1 grain.	Has had numerous severe convulsions. The part below the point of section has been affected as much as any other.

Experiment 8.—A young kitten; the cord cut in the middle dorsal region; veratria injected.

TIME.	DOSE.	REMARKS.
3 minutes. 7 "		Has had a general convulsion. Hind legs affected. Dead.—On opening the body, the heart was found beating vigorously.

Experiment 9.—A pigeon; cord cut in the upper dorsal region; veratria injected half an hour afterwards.

TIME.	DOSE.	REMARKS.
2 minutes.		Violent general convulsions, some of which appeared to be produced by external irritation, affecting all parts of the body, the legs as well as the wings.

Experiment 10.—A large cat; cord cut in the middle dorsal region.

TIME.	DOSE.	REMARKS.
25 minutes.	3 grains.	The cat has had numerous violent convulsions, in which the parts below the section were affected earlier than those above, and throughout they were more strongly convulsed than the upper part of the body.

These experiments prove that the convulsions caused by prussic acid, aconite, and veratrum viride are not of spinal origin, whilst those produced by veratria do arise from the spinal centres. I confess that I was very much surprised by the latter result. The alkaloid was the commercial article, probably of German origin; several samples from different stores were employed indifferently, all acting alike.

As prussic acid, aconite, and veratrum viride are such powerful depressors of the circulation, it very naturally occurred to me that perhaps the convulsions induced by them, being cerebral, are due to the want of blood at the base of the cerebrum. In investigating the truth of this supposition, evidently the first matter to be settled is whether there is any relation between the activity of the circulation and the occurrence of the convulsion. On referring to my article in the April number of the *American Journal of the Medical Sciences*, for the year 1870, upon viridia and veratroidia, I find that in Experiment 16 (viridia) before a convulsion occurred the arterial pressure had fallen from 140 to 70 mm. In Experiment 17 (viridia) the arterial pressure fell from 125 to 77 without the occurrence of a convulsion. In Experiment 21 (viridia) the arterial pressure fell from 154 to 80, yet no distinct convulsion occurred, only convulsive tremblings. In Experiment 22 (viridia) the arterial pressure fell to 70 before the convulsion occurred: unfortunately, the normal pressure was not noted. It is evident that in these experiments the convulsions from viridia-poisoning did not occur until the arterial pressure had been reduced to one-half its normal amount. Veratroidia was found to act less energetically upon the circulation, and the convulsions also were fewer and less severe than those induced by viridia. In Experiment 19 (veratroidia), however, the original arterial pressure was 140; it fell to 80, but rose again to 117, at which point it was when convulsions came on. As far as these results go, they seem to indicate a connection between the state of the circulation and the occurrence of convulsions.

The following experiments were made to see whether in aconite-poisoning any similar relation exists between the circulation and the convulsions. Morson's pure aconitia, obtained directly from the manufacturer, was used.

Experiment 11.—A moderate-sized dog.

TIME.	DOSE.	CARDIOMETER.	REMARKS.
0 m.	½ grain in periton'l cavity.	120 to 130 when quiet.	
3 "		115 to 120, dog being very quiet.	Respiration evidently affected, deep, labored.
5 "			Dog vomiting.
10 "		70 to 115, the mercury following the slow labored action of respiration; individual heart beat scarcely affected.	Arterial blood as dark as venous.
13 "			Dog died quietly, without the slightest trace of convulsions; apparently completely paralyzed.

Experiment 12.—A moderate-sized pup.

TIME.	DOSE.	ART. PRESSURE.	REMARKS.
1 m.	¼ grain in periton'l cavity.	Mostly about 175.	Dog struggling.
5 "			
9 "		125 to 160; mostly about 135.	Dog is exceedingly quiet, not moving a muscle; respiration affected.
15 "		60 to 90, but nearly all the time below 75.	Pupils slightly dilated; left decidedly larger than the right. Respirations 16. Pulse 76.
20 "			Pupils much dilated; unequal. Dog struggling, apparently semi-convulsively, or else the movements are efforts at vomiting; previously animal had lain absolutely quiet. Respirations very irregular.
25 "			Dead. Some distant, decided efforts at respiration were made after the pulse had stopped in the femoral. Just before death there were one or two stretching movements of muscles; otherwise, the dog died quietly. There was no distinct vomiting.

Autopsy.—Heart soft, enormously dilated, and congested. Left side full of bright arterial blood. The auricles (especially their appendages) making some efforts at contraction. When cut, the auricles moved more actively; slight fibrillary movements were also produced in the right ventricle by cutting it and afterwards pricking it. The left was immovable by mechanical excitement.

In neither of these experiments were convulsions induced. This was somewhat surprising, but of course does not disprove that aconitia convulsions when they do occur are due to disordered brain-circulation.

The following experiments were performed to determine whether the aconitia I had would produce convulsions in other animals than dogs.

Experiment 13.—A full-grown rabbit.

TIME.	DOSE.	REMARKS.
	⅙ grain.	
2 minutes.		Rabbit very restless; running around in a very peculiar manner; jumping suddenly forward and upward. Respiration labored.
5 "		Rabbit very weak, and profoundly affected, with labored breathing. There is great loss of muscular power, but he has just had a violent general convulsion.
6 "		Dead.

Autopsy.—Immediate. The heart was found soft, dilated, full of dark blood; when seized with the hand, pulsating very feebly. It was uncertain whether the pulsation was excited by hand or was spontaneous. Blood everywhere very dark.

Experiment 14.—An adult rabbit.

TIME.	DOSE.	REMARKS.
	¼ grain.	
½ minute.		Rabbit jumping as in last experiment.
7 minutes.		Rabbit unable to stand, lying on his side, giving repeated sudden, apparently involuntary, kicks with his legs.
8 "		A feeble general convulsion.
9 "		Dead.

Autopsy.—Immediate. The left ventricle beating very feebly, with no propulsive force; the right dilated, soft, full of black blood. Blood everywhere dark.

These experiments show that upon rabbits the aconitia does induce convulsions. It has occurred to me that the reason motor disturbance is not brought about in dogs is that the paralytic action of the alkaloid upon them is proportionately so intense as to prevent the development of the convulsions which would otherwise occur from the disturbance of the circulation at the base of the brain. If this be so, evidently any artificial means of increasing the disturbance of the brain-circulation ought to aid in the production of convulsions, or, conversely, if by artificially increasing the disturbance of the circulation in the base of the brain, naturally produced by aconitia, we can cause convulsions in the dog, it becomes exceedingly probable that the motor disturbance produced by the drug is really due to deranged brain-circulation.

The following experiments were performed to test this question:

Experiment 15.—July 9, 1873.—A stout terrier, in which one of the carotids had been tied four days before the present experiment.

4.7 P.M.—Injected $\frac{1}{60}$ grain of pure aconitia.

4.17 P.M.—Injected $\frac{1}{20}$ grain? (The amount may be incorrect.)

4.35 P.M.—Attempting to vomit.

4.37 P.M.—Convulsive movements, with violent efforts at vomiting.

4.50 P.M.—The dog has been lying upon his side ever since last note, with occasional most violent and noisy efforts at vomiting, and constant convulsive movements, forcing his body into every conceivable position.

4.55 P.M.—Died quietly, simply stretching out the feet stiffly in the agony.

Experiment 16.—A young impure pointer bitch. July 12, 1873, in the morning I tied the left carotid, and at 4 P.M. put a tight ligature round the right; no apparent result.

4.9 P.M.—Grain $\frac{1}{20}$.

4.42 P.M.—Since last note the dog has had about $\frac{1}{6}$ of a grain.

4.58 P.M.—Dog is barking hoarsely. There are very active movements, in regard to which it is impossible to say how far they are voluntary, how far convulsive. Pupils somewhat dilated.

4.55 P.M.—Dog lying on his side, kicking convulsively with the hind legs.

5.3 P.M.—A general muscular effort, apparently not voluntary, but convulsive.

5.14 P.M.—The dog has had a number of very violent spells of vomiting and retching. Some of these would commence with a general convulsive movement, which would pass off with a violent effort at vomiting.

5.15 P.M.—Dog leaped into the air, apparently involuntarily.

5.22 P.M.—There have been a number of very decided convulsive spells ending in violent retching. Between these the dog lies on his side; in them he turns about, throwing his body clear over.

5.25 P.M.—There have been several decided convulsions affecting all the muscles of the body, and not ending in vomiting.

5.35 P.M.—A long, general, tonic convulsion, followed by a few gasps and death.

These experiments seem to show that both vomiting and convulsions are induced in the dog by aconitia when the blood-paths are artificially narrowed, and when, consequently, the disturbance of the brain-circulation naturally produced by the drug is artificially increased.

In conclusion, as the convulsions induced by the class of drugs now under consideration are of brain-origin, as they only occur after the circulation is profoundly affected, as they are increased by artificial narrowing of the cerebral blood-paths, and as disturbance of the circulation of the base of the brain is known to cause convulsions, it seems to me highly probable, if not actually proven, that the convulsions induced by these substances are secondary and dependent upon deranged cerebral circulation.

Since this paper has gone to press, it has occurred to me that perhaps there is a difference in the convulsive tendency of animals: by this I mean that

one animal is much more readily and violently convulsed by disturbances of the cerebral circulation than is another. Further, it has seemed possible that the dog is not convulsed by aconitia so actively as is the rabbit, because his convulsive tendency is less. It is very evident that if this were to prove correct, the argument that aconitia does convulse by acting on the cerebral circulation would be greatly strengthened. It would be like "proving a sum" in the arithmetic lesson of the juveniles. I therefore opened the left carotid of a dog whose right carotid had been tied some hours previously, and, when he failed to bleed to death from this, the femorals. The convulsions were decided, but by no means severe; they did not cause any marked alterations in the position of the body, and occurred only during the last moments of life. In a rabbit, however, which was bled to death from its carotids, the most violent convulsions occurred, the body being thrown about in all directions, the animal pitching forward on its head and turning somersaults, etc.

POPLITEAL ANEURISM.

CASE TREATED AT THE PRESBYTERIAN HOSPITAL.

BY OSCAR H. ALLIS, M.D.,

One of the Surgeons.

THOMAS M., æt. 50; colored; temperate; has always been a healthy man. On the 11th of last May (1873), while engaged in carrying *three-bushel* sacs of potatoes up out of the cellar, he experienced a sharp pain in his right foot, which he supposed to be rheumatic. On the following day he noticed a swelling in the right popliteal region, and found the knee-joint somewhat stiffened. The swelling increased rapidly, and in less than a week he was obliged to desist from labor.

Admitted into Presbyterian Hospital, May 24, 1873. *Present Appearances.*—Patient is tall, with large frame, muscular, well nourished, having the appearance of bodily vigor and soundness. There is in the right popliteal space a pulsating tumor. This tumor is hard, not compressible, and does not diminish in size when the femoral is compressed. It extends about three inches above the joint, and lies in the middle of the popliteal space. Pulsations synchronous with those of the femoral are felt distinctly on the sides of the knee-joint and over the body of the tumor, and disappear on compressing the artery above. There is no thrill communicated to the hand, though a *bruit* is distinctly heard over the body of the tumor. The knee is much swollen, and the leg and foot are œdematous. He complains of pricking sensations in the foot. There are no signs of degeneration in the coats of the vessels in the arterial system. The sounds of the heart are clear, and, except a little hurried, normal.

I will be excused if I do not enter into the treatment of the case with what might seem a tedious minuteness, and instead will give the more striking features in the order in which they occurred.

On Thursday, May 26, I flexed the limb and confined it with a bandage. This was continued for two days and nights, and, finding that the knee and leg were becoming more swollen, was discontinued.

One week later, a Lister's tourniquet was applied over the femoral near the apex of Scarpa's triangle, as there were many enlarged glands higher up in the inguinal region. The tourniquet at first gave much pain, and was loosened after two hours; but tolerance was soon established, and the pain borne with remarkable fortitude. After the tourniquet had been worn for two days, I deemed it advisable to substitute digital compression. This, strange to say, was very irksome to the patient, who would at intervals of two hours request the reapplication of the instrument, during which times he would obtain sleep, and at no other. At the expiration of thirty hours, finding it difficult to obtain sufficient help, I discontinued digital compression, to the entire satisfaction of the patient, but continued the instrument until the following day. Compression, either manual or instrumental, had now been kept up for four days; and, as the region compressed was becoming tender, I deemed it best to desist from further interference for the present, and in the mean time to give him iron stimulants and a generous diet. The foregoing treatment had perceptibly diminished the pulsations in the tumor, which had now disappeared on the side of the knee and were most distinctly felt directly over the popliteal space.

I will here mention a most unfortunate complication in the case. The bandage applied to the foot and leg —carefully applied and affording the patient comfort— was, by a fold in the popliteal space, the occasion of a transverse fissure. This fissure was only through the skin, or at most through the superficial fascia, and not deemed at the time of any importance. It was touched with the stick of nitrate of silver, and dressed with a cerate. The patient never complained of any pain in it, and, though it seemed to increase a little in size, it still gave no external evidence of the undermining going on in the structures of the popliteal space, until Thursday, the 12th, eight days after cessation from compression, when a sudden hemorrhage took place, which proved to have come from the still pulsating aneurismal sac.

A consultation with my colleagues at the hospital favored a second attempt in compressing the artery, and in thirteen hours all pulsation in the sac had ceased. While compression was going on, the foot and limb became very cold, and warm bottles were placed about them.

On visiting my patient the following day, I was a little surprised to see symptoms of gangrene extending well up the leg. Free longitudinal incisions were made through the skin and deep fascia, and stimulants, with iron, quinine, and opium, freely administered. The symptoms at this time were of a low typhoid character, except his pulse, which ranged from 108 to 120 and was quite firm and even. The condition of the man remained unchanged from this time until his death, which took place eight days after the first appearance of the gangrene.

Post-mortem Examination.—1. Whole popliteal space sloughed away. No remnant of the sac to be found.

2. The clot extended from the sac about an inch into the artery, where it was adherent.

3. The places compressed by the tourniquet appeared as if bruised.

4. The tissues about the femoral artery had not been so compressed about it as to have rendered ligation more difficult.

5. No atheroma in the large vessels.

6. No signs of disease in internal organs.

In regard to the case whose history has just been related, two queries present themselves for consideration:

1. Was the gangrene the result of compression?

2. Ought amputation to have been resorted to immediately on the supervention of gangrene?

It is claimed for compression, and especially digi-

tal compression, that its results are never prejudicial to life or limb, and that whenever it fails and ligation follows, it may almost be regarded as commendable preparatory treatment, since by it the collateral circulation has in a measure become established, and the danger of gangrene thereby greatly diminished; and this the statistics of cases fully confirm. I have found but one case of gangrene resulting from compression, and but one of fatal erysipelas; but neither of these can justly be regarded as prejudicial to this *mode* of treatment of aneurism.

In my own case I believe the gangrene was due to the condition of the popliteal space.

Let me here refer to the history of the slough in the ham. On the 4th of June, sixteen days previous to his death, a mere fissure was noticed traversing the lower part of the popliteal region, scarcely deeper than the skin, and caused, as I have already mentioned, by the bandage in a fold of skin in the popliteal region. Under ordinary circumstances this fissure would not have been caused, or, if caused, would have healed in a few days; but in a swollen œdematous limb, elevated in temperature and imperfectly supplied with blood, it soon assumed alarming proportions, and in eight days involved the aneurismal sac. To this condition of the popliteal region, and to this alone, must be attributed the disastrous results of compression.

As to the second consideration, Ought amputation to have been resorted to *immediately* on the supervention of gangrene? Certainly it would seem to have been the only remaining chance of saving life. There appears to be no conflict of authorities upon this subject. Those that are not altogether silent upon it state that amputation should be resorted to as soon as symptoms of gangrene present themselves.

I deferred amputation because my patient had every symptom accompanying a low typhoid state of the system, with the single favorable symptom—a pulse of one hundred and twenty. I am convinced now that every moment lost when gangrene is imminent renders the case more hopeless; and were I to be placed in like circumstances again I would amputate, if I felt my patient had sufficient vitality to bear the shock.

TUMOR OF THE BRAIN.

BY T. D. DAVIS, M.D.,

Dayton, Ohio.

Read before the Montgomery County (Ohio) Medical Society.

TUMORS of the brain mostly give rise to such marked symptoms that "he who runs may read;" but sometimes they resemble other brain-diseases so closely that accurate diagnosticians may be excused for disagreeing. I cannot assent to the opinion of some when they assert "that, with few exceptions, the diagnosis of tumor of the brain is but a guess, and the determination of its locality is impossible." Certainly there is no pathognomonic symptom; for there is no one symptom arising from tumors that does not occur in other brain-troubles; but there are certain groups of symptoms which, with a careful history of the case, will, I think, enable us to decide.

Mr. L., aged 39; married for seventeen years. Used neither alcoholic drinks nor tobacco; pattern-maker; family generally healthy, with no history of any brain-lesion. For some years past he could not do any kind of work which jarred him or caused him to stoop, such as splitting wood or digging in the garden, as it would make him sick at the stomach and his head dizzy.

In March, 1872, he had a carbuncle on the back of his neck, and was never so well afterwards. About this time he commenced to lose his memory for names. In May he began to complain of a violent pain in his head, and to be sick at his stomach occasionally in the mornings. He was very restless at night, and moaned and groaned a great deal, and on being awakened would say his head pained him. He would come home from his work in the evenings and lie down on the floor and sleep there until late at night, and then declare he could never go to work again. On being wakened in the morning, he would complain of great weariness. About this time he noticed his sight failing him while reading, but was able to see to work. Had a very good appetite. His bowels were obstinately constipated, although he never complained of pain in them. He was able to continue at work until the middle of June. At this time all of his symptoms had increased. He was constantly sick in the mornings at his stomach. Marked aphasia was present. Appetite became very poor. There appeared to be impairment of all his special senses. He could not distinguish the different articles of food. His hearing became indistinct. The latter part of this month he had a slight inflammation of the bowels, possibly caused by the medicines administered.

In July all the symptoms were growing worse. When he would take a walk he would have to stop and vomit, and once stopped three times in a single short walk. On one occasion he had a spasm; his limbs gave way, and he had to be helped home. From this time his gait was more and more unsteady. He had full power to move both his legs, but after walking a few moments he would get weak in his knees, drag his toes, stumble over small obstacles, and complain of feeling dizzy. In August he had several more spasms, which came on him while lying down, and he became perfectly unconscious. His legs would wrap round each other when he attempted to walk, but he could move them around in the bed as he pleased. His hands also became unsteady. He could hold anything for a few moments, and then would let it drop. There was no paralysis, but a loss of power to keep the muscles contracted for any length of time (paresis).

In September he became very drowsy and restless, and still suffered constantly with the violent pain in his head. Profuse sweats commenced, the perspiration rolling down his face. His left eye became affected with squint, and he lost the power of opening fully the lids of the same eye. The pupils were about the normal size, and *evenly dilated*. The temperature of both sides of the body was the same, although not tested with a thermometer. There was still no paralysis of any of his limbs. The weather seemed to have a marked effect on him, as he was very much brighter on rainy days and in fine dry weather suffered most intensely. From this time until his death, on the 18th of November, his symptoms remained much the same. The convergent strabismus and ptosis were augmented. There was no more paralysis developed, but paresis was increased. For two or three days he would be

comfortable, with the exception of the excruciating pain in his head; then for twenty-four hours he would become very nervous and restless, and then he would pass into a comatose condition for twenty or thirty hours, and on wakening would be very much prostrated. His strength continued to fail. He could still hear and see some. There was complete aphasia, he being unable to recall the name of the most familiar article, with this wonderful exception, that he could *lead in prayer with a clear voice and well-pronounced words.* This was the more remarkable as he did not pray by rote, but framed *new* petitions each time. During the whole course of the disease there was no febrile attack. He died calmly and peacefully, after remaining comatose for forty-eight hours.

The question arises, Of what disease did our patient die? To say nothing of the intestinal trouble for which it was once mistaken, but which mistake could not possibly have lasted more than a few days, there are but a few others from which to separate it. All acute brain-diseases are at once excluded. It might be confounded with meningeal hemorrhage, chronic meningitis, abscess, or encephalitis, softening of the brain, or tumor. From the first of these it is readily distinguished by its not coming on suddenly: this disease can rarely be mistaken for any other when a full history of the case can be obtained. The history also excludes chronic meningitis, as it almost invariably begins with an acute attack, advances more rapidly, gives rise to febrile symptoms having exacerbations, the pain not being constant nor of the same character, paralysis more usually present, the special senses rarely affected alone, the intellect more disturbed, its duration and course much different. As to abscess or encephalitis, although any one of the symptoms narrated may be present, yet it has not the history of this case. The absence of a cause is a strong argument against abscess, as it is mostly the result of an injury or some acute inflammation of the brain or its membranes, or is due to necrosed and diseased bone. True, it may be dependent on the inflammation set up by the pressure of a tumor; but then we would have had the acute symptoms. It never advances so insidiously, nor lasts so long. It almost invariably produces many more prominent brain symptoms and disturbances. We know that large abscesses sometimes remain hidden and are not suspected until post-mortem examinations reveal them; but they never have the exact history of this case.

We have, then, but to determine between softening and tumor of the brain. In well-marked cases of each of these diseases there would be no trouble in discriminating them; but this case has so many symptoms in common with both that the very greatest care must be observed in deciding. Softening can, like the preceding diseases, mostly be traced to a cause, but some cases come on so slowly as not to be suspected until the symptoms have become grave. Still, even then we may trace it to its source,—caries of some of the cranial bones, injury to the head, apoplexy, hemorrhage or embolism, inflammation, some heart trouble, atheroma of the arteries, etc. The pain in softening is always dull, and when attended with exacerbations, the pain then resembling that of tumor, there is more or less febrile action with it. In this case the pain was very violent and continuous. Softening, unless the result of an inflammation set up by a tumor, rarely becomes so chronic. The perfect example of paresis, the aphasia, and the almost total absence of paralysis, all point to softening as the cause. But the absence of increased pain on the moving of the head, the steady, severe pain continuing so long without other marked brain-symptoms, the convulsions and their character, the marked paralysis of the third nerve, the impairment of the special senses, the absence of any febrile symptoms, the exacerbations in fine weather, the total want of any cause, the long duration, the slow and gradual development and extension of the local symptoms, the patient's inability to tell when the disease began, the retention of his intellectual powers, the marasmus, the constipation of the bowels, the failing of the health by asthenia, the absence of any general or well-marked paralysis just before death, and the calm and peaceful death while comatose, all point strongly and conclusively to a tumor in the brain. The proof of tumor announced by Ziemssen was not tried.

If the diagnosis of a tumor is difficult, the diagnosis of its location is still harder. Occasionally tumors may be so well marked that the crudest anatomical knowledge of the brain will enable us to locate them; but in this case no such accurate diagnosis could be made. The small amount of intellectual derangement and paralysis would show us that it was central and did not encroach much on any of the great nerve-centres. The absence of hemiplegia would indicate that it was not in either side of the cerebrum, or in the crus cerebri, or on one side of the pons, and not likely on one side of the cerebellum. The absence of pain in the back of the head would be quite strong proof that it was not in the posterior cranial fossa. The want of an ophthalmoscopic examination prevents us from knowing whether the impairment of sight was owing to atrophy of the optic nerve the result of pressure or of venous congestion; but it was most probably the latter, as his powers of vision varied.

As to the kind of tumor, we would from the symptoms be as much at a loss to decide as to its location. There was no history of carcinoma in his family or himself. There was no tuberculous history; and his age would be against such a conclusion. No atheroma of his arteries to point to aneurism; no parasites in other organs; and no suspicion whatever of syphilis. There is one point which I have never seen noticed, but which may be of value as a symptom of cystic tumors. When the air was rare, he was affected more and the pain was much more severe; caused, perhaps, by the tumor expanding when the air was dense from moisture, as just before or during a rainstorm he was much easier. This being the opposite to the course of most pains makes it noticeable.

On post-mortem examination, which I made thirty-six hours after death, a cystic tumor, about the size and shape of a pullet's egg, was found in the left ventricle. It had been ruptured, perhaps in the removal of the brain; but the thickness of its

wall, with the careful handling of the brain, would incline me to believe it was done ante mortem, more especially as it was afterwards inflated by the blow-pipe and bore a very considerable pressure without again rupturing. Its contents appeared to be simple serum. Its wall was about one-sixteenth of an inch in thickness, and was dimly translucent, almost opaque, with a large deposit of lymph of a brown color all over its inner surface. It was attached to the septum lucidum by about three-fourths of an inch of its wall. The thalamus opticus was nearly entirely atrophied, and the corpus striatum had a large depression for its accommodation. The brain-tissue around bore no signs of inflammation or softening. The brain itself was normal throughout. That part of the brain usually regarded as the seat of verbal memory was entirely unimplicated, so far as could be discovered.

One of the most remarkable features of this interesting case was the character of the aphasia. It was purely amnesic, as there was no paralysis whatever of the organs of speech. He could repeat distinctly any word after you pronounced it, but he would miscall the commonest article. Wanting his hat, he would ask for his boots, and be surprised when they were brought to him; and it was sometimes impossible for him to tell his wishes without resorting to signs. But even in *his worst stages he could frame and pronounce accurately a long prayer*, and his last words were uttered in prayer for his children. If, as we have been taught, aphasia is dependent on a change in the brain-structure or on pressure, how was this possible? If the pressure or absorption of the corpus striatum was sufficient to prevent a communication with the organs of speech, how could he pray? And yet he would arise from a well-worded prayer and be utterly unable to name his children.

TRANSLATIONS.

ANIMAL STARCH.

BY WM. ASHBRIDGE, M.D.

TWO years ago, C. Dareste observed in the yolks of hens' eggs microscopic nuclei, which manifested physical and chemical properties resembling those of starch, and to which, for this reason, he gave the name of animal starch.

These assertions met with much opposition; and this can readily be understood when the difficulty with which the nuclei are recognized is taken into account, for in the yolk of the egg they are mingled with albuminous, colored oils, and that fat containing phosphorus to which the names lecithin and protagin have been given. These substances often mask the characteristic reaction with iodine and interfere with the conduct of these nuclei when viewed by polarized light. The observer is compelled to separate them on the slide of the microscope,—a proceeding requiring much time and patience, and in which a satisfactory success is quite exceptional. At length, however, Dareste discovered a manipulation by which he demonstrated the existence of starch in the yellow of the egg. This is, to place a few drops of the contents of the sac of the yolk upon a slide; these are to be taken from the egg just at that period of incubation at which the sac has fully separated itself from the contents. The yellow globules have at that time undergone a species of digestion, the first effect of which is to separate the various elements of which they consist.

By the aid of polarized light a large number of nuclei are seen, which possess the optical properties of starch, properties which have not been observed in any other non-crystallized substances. The average diameter of these bodies does not exceed .025 millimetre.

With iodine they do not always give a blue, as they would if procured from an egg that has not been partially hatched, but sometimes assume a reddish hue. This is due to a commencing absorption: it was observed also in vegetable starch by Nägeli. The globules of the yolk then contain starch, but during the latter part of incubation it is absorbed and vanishes. This agrees with another fact observed a long time ago by Lehmann, namely, the presence of glucose and its increase during incubation; for it is manifest that this glucose results from the metamorphosis of the starch. By the aid of a very delicate apparatus for polarized light, Dareste succeeded in observing the characteristics of starch even in very fine nuclei; he found also that the starch is not present in constant quantity, but rather that during the development of the egg in the ovary, and that of the embryo in the egg, several periods of generation of the starch-granules can be established.

The earliest of these periods is while the egg is yet in the ovary. In this position it undergoes a series of changes which as yet are very imperfectly understood, but there comes a time in the life of the ovum when there can be observed upon the inner side of the outer membrane a collection of minute starch nuclei arranged in isolated groups. When and how this first manifestation occurs is unknown; whether they are totally absorbed before the formation of the yellow globules in the yolk, or whether they are the beginning of the same nuclei which appear in the yolk, is equally a point for further investigation. Then follows a second period of generation,—that to which allusion was first made: it only remains to add that, as a rule, the starch nuclei in this period are larger, both than those occurring in the earliest stage, and than those described later. In the third period the process goes on in the cells of the mucous membrane of the blastoderm. Finally, a fourth generation of starch takes place in the liver; the nuclei here produced are the smallest that have yet been seen, and can be recognized only with the highest powers of the microscope, but their optical properties leave no doubt of their true nature. They produce, beyond doubt, the "glycogenic matter" observed by Bernard.

There are thus, then, probably four periods of the generation of starch in the egg, from its first appearance in the ovary till the young creep forth. As yet there has been no explanation given of this successive appearance and disappearance of starch in the hen's egg. Perhaps some idea in regard to it may be formed by noting the isomerism between starch and glucose, the readiness of the metamorphosis of the former into the latter, and the probability of the regeneration of the starch at the cost of the glucose. The wandering of starch into the various parts of plants is explained in this way. According to the observation of Sachs, starch is created only in chlorophyll by the influence of sunshine, and always passes into the parts not containing chlorophyll in the form of glucose. This theory, according to Dareste, can be applied to animal physiology as well, for he thinks starch gets into the animal economy in the form of glucose, and has its source, either directly or indirectly, in the vegetable parts of the diet. He had suspected the existence of starch in the fecundating secretions of animals; and this he confirmed by experiments chiefly upon birds.

TREATMENT OF PNEUMONIA BY CARDIAC MEDICAMENTS.

By Dr. Max Legrand. Translated from *L'Union Médicale* for May 15, 1873,

BY JEAN PAUL BONSIEUR, M.D.

THE following is an epitome of the lectures of Professor G. Sée, delivered at the Charité:

Treatment by Digitalis.—This drug is the cardiac medicament *par excellence*, as many experimenters have proved. M. Marcy, professor to the College of France, held that digitalis increased the intravascular pressure and by this means slowed the action of the heart and also increased its strength. Professor Sée, while admitting the increase of the arterial tension, asserted that this was not the cause of the decreased action of the heart, that being influenced through the pneumogastric. La Pommeraye, MM. Tardieu and Roussin, show that section of the vagus nerve interferes with the action of the poison. That is true; but they do not entirely suppress its action. MM. Cl. Bernard and Vulpian demonstrate that, after section of the vagus, digitalis will still act on the heart. They are all right, relatively. Digitalis acts not only on the pneumogastric, but also on the intrinsic ganglion of the heart itself, and probably on the muscular tissue. We always observe in the physiological state, after the exhibition of digitalis, a decided slowing of the pulse, a considerable diminution in the amount of urea (from 20 to 30 per cent.), with a falling of the temperature from half a degree (Centigrade) to one, one and a half, or even two degrees: consequently, digitalis is one of the most energetic antipyretic agents in the materia medica.

Digitalis acts slowly; and, unfortunately, pneumonia always needs energetic interference, it being necessary to wait from twenty-four to forty-eight hours for the action of this drug, which often throws us on to the critical days. What is more, this being a cumulative drug, we must exercise great care in its administration.

Now, we can give five grammes of bromide of potash per diem to a patient; at the end of eight hours its action is over, the bromide being so rapidly eliminated. And so to determine the phenomena of intoxication in an animal, if we inject, to-day, one milligramme of nicotine under the skin, it is necessary to use twice the amount to-morrow to produce the same effect, the system so soon becomes accustomed to it.

Digitalis comports itself otherwise; with a decoction of 0.50 centigramme of the leaves we obtain a slowing of the pulse after from twenty-four to forty-eight hours, and the dose being renewed, the diminished action is continued. It is important to be alive to its peculiarity, not to be impatient and force the dose for quicker action, or the gravest consequences may follow.

Administered in pneumonia, the temperature is lowered, with a decrease in the number of arterial pulsations; the fever is diminished on the first or second day after exhibition, similar to that which occurs naturally on the seventh day; which effect we have the right to claim for the drug.

The lowering of temperature is not always coincident with the decreased pulse-rate, the temperature falling first; oxidation being diminished, dangerous congestions of the internal organs do not follow. The fall is not always to the normal figure (37°.5 Centigrade), but descends to 40°, 39°, or 38°.5, where it stays.

En résumé, digitalis does not abridge the duration of this disease, in spite of the assertions of Traube and Hirtz; the fever is not suppressed, but only diminished. We use this drug not to extinguish the malady, but to attenuate it.

Digitalis is useful in alcoholic pneumonia, and is very much used for this form of disease in America. The delirium appears not only in old drunkards, but in the habitual drinkers of wine; alcoholic delirium is a bad expression; a more correct one would be delirium from suppression of alcohol. The onset of the pneumonia is always sudden; the temperature rises in five or six hours to 39° or 40° Centigrade. Wine is given to bring down the delirium, with a full dose of a narcotic, as we give in all violent affections of the nervous system. We also employ digitalis in large doses, without carrying it so far as the American physicians, who do not fear to prescribe fifteen to twenty or even thirty grammes of the tincture in the twenty-four hours. None of their patients die; showing that large doses are well supported in delirium. This is what they call a therapeutic tolerance.

TREATMENT OF ACUTE ARTICULAR RHEUMATISM BY CHLOR-HYDRATE OF TRIMETHYLAMINE.

By Dr. L. Martineau. Translated from the *Gazette Médicale*

BY JEAN PAUL BONSIEUR, M.D.

SINCE the introduction of this drug into notice by Dr. Dujardin Beaumetz, I have had occasion to witness its excellent effects.

Case.—X., compositor, æt. 34, attacked March 7, after chill and fever, with articular pains. Never suffered from rheumatism; no hereditary taint. On the 8th I diagnosed acute articular rheumatism. All the joints of the superior and inferior extremities were swollen and extremely painful; the patient being incapable of the slightest movement. The pulse was full, strong, and frequent,—89 per minute; perspiration very abundant.

The following prescription was ordered:

℞ Aq., parts (by weight) 100,
Aq. menth. pip., parts (by weight) 40,
Syr. aurant. cort., parts (by weight) 30,
Trimethylaminæ chlorhydrat., part (by weight) ½.
M. et Sig. Exhib. coch. mag. om. bis hor.

March 9.—Insomnia, abundant perspiration, urine increased; pulse full, strong, 69; articular pain less intense, disappeared from some joints; swelling and redness still persistent. The patient takes the medicine with pleasure, the taste being masked by the peppermint-water, though the odor still persists.

March 10.—Slept four hours during the night; slight moisture on the skin; pulse full, large, 60 to the minute; tongue clean; appetite good; the articular pain has entirely disappeared, together with the redness and tumefaction. The patient is now able to move his limbs without pain, and with the greatest facility. The medicine is well received by the system; no gastric trouble. Continue prescription every four hours.

March 11.—The amelioration continues; the patient keeps his bed, in order not to compromise his cure; pulse large, 51 to the minute; skin slightly moist; no cerebral or cardiac involvement; appetite good; urine abundant; sleep perfect. Continue the prescription through the following day. Discharged.

Genesis of Uric Acid.—Dr. Powlinoff, of Moscow, considers that by finding a quantity of uric acid in the blood of a pigeon, whose renal vessels he tied, he has proved its existence as such in the blood, and that it is only separated by the kidney, and not formed there, as Zalesky, Meissner, and Chrzonszczewsky consider.—*Centralblatt f. d. Med. Wissensch.*, April 5, 1873.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

THE APPOINTMENT OF RESIDENT PHYSICIANS IN OUR HOSPITALS.

WE have long thought that the method of appointing resident physicians or internes followed in the various hospitals of Philadelphia is the worst possible for securing the best results to the patients of the individual hospitals, to medical science in general, or to the especial medical interests of our city. Like kissing, the appointments to medical residentship in the hospitals with us go by favor, —universally so, we believe, except in the Philadelphia Hospital, where an examination is held, whose results, although they do not absolutely decide in all cases, influence very greatly, the elections.

Then, again, there is no grading of the internes, —the graduate of yesterday having just the same rights, privileges, and responsibilities as the interne just completing his period of service.

This seems to us totally wrong. In defence of the system of appointing visiting surgeons and physicians and professors in medical colleges without *concours*, it may be pleaded that the candidates by the time they have arrived at a sufficient age have so far achieved their respective reputations as to make a judicious choice possible without any immediate test of fitness. Not so with the fresh graduate, however. Who knows whether the youth ascending the platform on Commencement-day is, or is not, to be a second Galen? Possibly his private tutor; probably no one else. Some test of fitness other than having sprung from the loins of a father prominent in some church, or a friend of bank-directors and other mighty men of valor among the money kings, or of having been nursed in the lap of a queen of society or of a mother in Israel, is needed; and, with all its faults, a rigid but fair competitive examination without doubt affords the best known test.

Again, this method of preference is so injurious to the interests of medical teaching in this city that, were we not well accustomed to such traits of character, we should wonder at the supineness of the medical faculties in not using their influence to have the mode of choice altered and the places thrown open to competitive examination. Men are drawn on in this world by hopes. Brilliant chances drag the multitude captive, though it be well known the chance is only one in a thousand for each individual.

One of the sources of success of Bellevue and other New York colleges is, undoubtedly, the well-known fact that the appointments to Bellevue, and, we think, also to Charity Hospitals, are open to any one by competitive examination. Certainly in this city we could offer one chance to every five, or at most ten, of the graduates who would desire the position of resident physician, if the plan of competitive examination were only introduced. But no! owing to the sheer inertia of old practice, owing to the want of enterprise or effort of the authorities of our medical schools, the vicious system protracts its life, and is introduced into every new hospital as it opens. It is useless for the faculties of our schools to plead want of power in this matter. The reform is certainly needed on other grounds than those of the interests of the medical schools; and if the united faculties of our colleges have not enough energy, eloquence, and influence to achieve this simple change, we suggest that it would be well for them to let others, who have these needed qualities, occupy their positions.

Further, we do most earnestly object to placing the highest authority and responsibility at once in the hands of the interne. The thing is too preposterous to need comment:—life and death hanging upon the word of a man who is almost of necessity unacquainted with more than the first rudiments of practical medicine, and mayhap does not even know the theory of his art! The visiting physician is not, and cannot be, always present. In distant hospitals he does not even see the patients once a day. In the Philadelphia Hospital he is not required to visit more than three times a week. It is absurd, then, to claim that he can do more than direct the general plan of treatment. In many emergencies the sufferer

might be dead, if not buried, before the official visit was due. No wonder that we so often witness serious results from the mistakes of resident physicians,—mistakes which even the most capable and judicious must make when thrust into responsible positions with only the training of the lecture-room and class-room.

The system employed at Bellevue Hospital, New York, obviates these very serious difficulties. There the appointee is at first *provisional externe*, his chief duty being to act as substitute in case any officer of the next grade should be absent or sick or should be himself acting as substitute in a superior rank. After six months' duty, the provisional externe becomes *junior assistant externe*, whose duty it is to act as a general assistant, to copy histories into record-books, cup, leech, etc., and, when needed, to act as substitute to his superior. Both of the externes live outside of the hospital, but are required to be present during the day, and take their dinners in the institution.

After a six months' service, the junior assistant becomes a *senior assistant interne*, resides in the hospital, takes histories, and attends to patients as the *house physician*, the highest grade of interne, directs. All of these grades, it should be stated, are responsible to, and under the control of, the latter functionary. The subject of substitution is not left, as in our hospitals, to the whims of residents or their chiefs, but is all directed by one of the visiting staff, chairman of a standing committee, who by virtue of his sole authority is able to reduce the absence of the internes to something like a just system.

No doubt it will be said, All this looks well on paper, but it has been tried in the Philadelphia Hospital and failed,—failed because the junior and the senior residents quarrelled in the most bitter manner. In truth, however, the plan works well in practice in Bellevue Hospital. How can any plan be made to work in a headless hospital? It failed in the Philadelphia Hospital because there was no one to control the young men,—no person in the institution having authority over them. Anarchy would of course, sooner or later, result in such a case, through the want of courtesy and consideration, or the downright tyranny, of some of the constantly changing chief internes.

In Bellevue they manage better than this. A warden, of sufficient ability and firmness to command respect, is the executive officer of the hospital, and absolutely governs the resident staff. As the result, everything works smoothly, the residents do their duty, and official quarrelling is impossible.

THE WHARTON TRIALS AGAIN.

WE have received from Dr. Philip C. Williams, of Baltimore, a pamphlet (an extract from the June number of the *Richmond and Louisville Medical Journal*, 1873) purporting to be "A Reply to Dr. H. C. Wood's Review of the Medical Testimony in the Trial of Mrs. E. G. Wharton for the Alleged Attempt to poison Mr. Van Ness," with an autographic letter requesting a notice of it in the *Philadelphia Medical Times*. As the profession has already been surfeited *usque ad nauseam* with the "Reviews" and "Counter-reviews" that have appeared in connection with these two Wharton trials, we do not propose to tax the patience of our readers nor to occupy our pages with any extended comments.

The pamphlet before us, like a preceding one by the same author, written as an "Answer" to Dr. Reese's Review of the first Wharton Trial, displays in a high degree the earnestness, we may say the *enthusiasm*, of the writer to maintain his own ground despite the odds against him. Notwithstanding the verdict of acquittal in the first trial, and notwithstanding the abandonment of the case by the State in the second trial, our champion refuses to "give up." Like the "man convinced against his will," he "is of the same opinion still." Like Goldsmith's school-master, "e'en though vanquished" he will "argue still."

Dr. Williams, moreover, does not hesitate to question the correctness of Professor Taylor's (of London) information in regard to the first Wharton trial; although this gentleman in his criticisms upon it, in the new edition of his "Principles and Practice of Medical Jurisprudence," distinctly refers his readers for his authority to the "report of the trial *in the Baltimore Gazette*," and *afterwards* to the "*Am. Jour. Med. Sciences*, April, 1872" (containing Dr. Reese's Review). It seems to grieve Dr. Williams that so high an authority as Dr. Taylor should have made such a "mistake" as to differ from himself and colleagues in his conclusions. Well, it is a pity that such eminent savants will differ; particularly as the unfortunate result must be, according to Dr. Williams, that "it exhibits great carelessness in Dr. Taylor," and that "it weakens our confidence in his work as *authority* in medical jurisprudence." Alas! poor Taylor! A name that *was* so bright!

Another wrecked reputation is that of "Wharton and Stillé," for we read in the recent edition, "This disease [*i.e.*, cerebro-spinal meningitis] has been confounded with poisoning by tartar emetic in the

trial of Mrs. Wharton," etc. We do not see what is left us,—unless, indeed, Dr. Williams will write us a book that shall be an authority.

In conclusion, we think that Dr. Williams has not strengthened his cause by charging his professional opponents with *intentional lying*, which is about all his pamphlet amounts to. It may be that their reputation for veracity is as good as his own, or even a "trifle better."

WE are always glad to note the recognition in a far country of work done in America. We see that the India *Medical Gazette*—the leading medical journal of the land where sunstroke most prevails—editorially adopts the name of "thermic fever" for sunstroke, as well as the pathology and theory of the disease advocated in the recent monograph published in this city, giving due credit to whom credit is due.

We also notice that a writer in the London *Lancet* of July 5 confirms the value of earth as a topical dressing, provided a suitable form of it be used with judgment. Earth containing much organic matter he finds to do harm; also sand with sharp particles. The best he found to be common earth, consisting of disintegrated ferruginous sandstone,—*i.e.*, silica,—from the vicinity of Simon's Bay.

Another writer in the same issue of the *Lancet* praises highly the instrument invented by Professor Gouley, of New York, for the relief of stricture.

IT is even more pleasant to see some ponderous German or corky Frenchman fall upon his nose through neglecting American medical literature than to witness the recognition abroad of results achieved. It gratifies at once the sense for the comic, the love of a mild revenge, and the national pride. A correspondent of *The Clinic* clearly sketches as follows the mistake of our friend Dr. A. Hermann, of Pesth, in regard to the early diagnosis of cholera:

"'*I have succeeded in discovering a symptom which will decide with certainty whether a given case be cholera or not*,' etc. And further along he says, 'The discovery of the author consists *in the detection of albumen cylinders and epithelium in the urine during the time of the precursory diarrhœa*.'

"In both extracts the italics are Dr. Hermann's own. On page 188 of 'Notes on the Origin, Nature, Prevention, and Treatment of Asiatic Cholera' (second edition), by John C. Peters, M.D., D. Van Nostrand, Publisher, 192 Broadway, N.Y., 1867, the gentle reader will find the following:

"'Albumen, epithelium, and tube-casts appear early in the urine, and increase rapidly in quantity. These appearances are manifest in the very inception of the diarrhœal stage, and are of great importance both in a diagnostic and therapeutical point of view.'"

JUDGMENT has proved adverse to the lady students at Edinburgh on their appeal to the Court of Session. The tribunal was a very competent one, and the arguments *pro* and *con* were reviewed with clearness and impartiality. Three of the judges hold, or have held, high office in the universities of Scotland; while seven others have taken an active part in academical administration.

CORRESPONDENCE.

MIDDLETOWN, CONN., July 21, 187 .

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR:—Below you will find the history of a singular case which came under my care about three months ago; and, as I think it to be a rare one, for I have not read of any other like it, I thought it would be of some interest to the profession.

Jerome P., æt. 20, American, and with no predisposition to syphilis, came into my office on the 19th of March, 1873. The patient had been suffering from a running sore situated on the sacral region, between the bodies of the first and second sacral vertebræ, the effects from what he called "a big boil," and which broke from a fall he received at the time, while skating. He had been to other physicians seeking for relief, but could get none. When I first saw the case, I thought at the time some of the sacral bones might be necrosed, or the periosteum might be affected; but upon my examining the case more closely, by means of a probe, I found that I could not feel any roughness, and could see the point of my probe come through the tissues, so that so far it was nothing but a blind fistula as deep as a common-sized probe. As I was a little puzzled, and desirous of getting a view of the thing, I made up my mind to make an operation, which anyhow had to be done in order to cure the patient. So I explained to him the nature of the case, and at once obtained his consent. I operated on him in the following way:

I placed a grooved director in the wound, and made a little opening at the bottom of the fistula for the director to pass through, and then, with a curved, sharp-pointed bistoury, laid open the fistula from below upwards, and, to my surprise, I found on the point of my knife quite a mass of hair, which at once revealed to me the real cause of the trouble, and, to my mind, this acted like a seton, thus keeping up a continual irritation and producing a most horrible and offensive discharge, which was not very pleasant to the olfactory nerves, and a source of trouble and nuisance to the patient.

How that hair got in there, is no easy matter for any one to know, unless he was acquainted with the case; and here let me remark that the fistula had three small openings, close to each other (big enough for the probe to go through), and communicating together into one, about half an inch from the point of entrance. The patient was a very hairy man, and that accounts, I think, for the hairs getting into these openings, may-be one by one at a time, caused by the breaking of them with the rubbing of his pants and shirt against his back while lying down on his back, or at the act of sitting; in fact, by anything that came in contact with his body. The wound, which was now a deep one, was packed up with oakum, smeared with some sweet oil to prevent it from healing up at the top, and retained there with strips of sticking-plaster. In six weeks the wound healed up finely by granulation; and the patient is now enjoying good health.

Respectfully yours, JULIO J. LAMADRID.

PROCEEDINGS OF SOCIETIES.

THE AMERICAN OTOLOGICAL SOCIETY.

MINUTES FOR 1873.

THE sixth annual meeting of the Society was held at Rice's Rooms, Newport, Rhode Island, July 16, 1873, at 10.30 o'clock A.M.

The President, Dr. HENRY D. NOYES, in the chair.

Present—Drs. John Green, St. Louis; D. D. Pomeroy, New York; J. Orne Green, Boston; Charles I. Pardee, New York; D. B. St. John Roosa, New York; R. M. Bertolet, Philadelphia; C. R. Agnew, New York; Henry D. Noyes, New York; Albert H. Buck, New York; Clarence Y. Blake, Boston; George Strawbridge, Philadelphia; C. H. Burnett, Philadelphia; S. Sexton, New York; William Thomson, Philadelphia; Charles Y. Kipp, Newark, New Jersey; Herman Knapp, New York; Charles E. Rider, Rochester, New York; and, by invitation, Dr. Argyle Watson, New York.

The President appointed Drs. Pomeroy, Strawbridge, and Sexton as the Executive Committee.

Notice was given of a proposed amendment to the by-laws, by striking out the paragraphs referring to the Corresponding Secretary, thereby doing away with the office; and also to change the rule for the meetings so that it should read, "meeting annually, at such time and place as may be determined upon each year."

The Treasurer's report was read, audited, and accepted.

The Executive Committee nominated as members of the Society, Drs. Charles Y. Kipp, of Newark, New Jersey; William Thomson, of Philadelphia; David Webster, of New York; all of whom were duly elected, and Drs. Kipp and Thomson took their seats as members.

The following bulletin of papers was submitted by the Executive Committee, read in order, and referred to the Publishing Committee:

1. Report on the Progress of Otology, Dr. Burnett.
2. Report of Three Cases, Dr. Buck.
3. Tenotomy of the Musculus Tensor Tympani, Dr. J. Orne Green.
4. Therapeutic Value of Tenotomy of the Musculus Tensor Tympani, Dr. Bertolet.
5. Cases illustrating the Effects of Paracentesis of the Membrana Tympani, Dr. D. D. Pomeroy.
6. A Case of Hardness of Hearing for Low Tones, Dr. Burnett.
7. A Peculiar Manifestation of the Paradoxical Formulæ in the Application of the Constant Electric Current to the Right Ear, Dr. Burnett.
8. Tympanic Trephine, Dr. Burnett.
9. Ulceration of the Dermoid Layer of the Membrana Tympani, Dr. J. Orne Green.
10. Reaction of the Auditory Nerve under the Galvanic Current, Dr. Blake.
11. Diagnostic Value of High Musical Tones, Dr. Blake.
12. Case of Deformity of the Auricle the Result of Inflammation, Dr. Roosa.
13. Deafness in Consequence of Epidemic Cerebro-spinal Meningitis, Dr. Knapp.

The thanks of the Society were voted Dr. Burnett for his elaborate and faithful report on otology.

At 2.30 o'clock, after the reading of the fourth paper, the Society adjourned to 4 o'clock.

SECOND SESSION.

The Society was called to order at 4 o'clock by the President, and the minutes of the first session were read and approved. The reading of the papers was then continued till 5.15 o'clock, when, after hearing the ninth paper, the Society adjourned.

THIRD SESSION.

The third session was opened by the President at 7.45 o'clock, and the two amendments to the by-laws proposed at the first session were adopted.

It was voted that one hundred extra copies of the Report on Otology be furnished by the Society to the author of that paper.

The reading and discussion of the papers were then concluded.

The Executive Committee reported the following list of officers for the ensuing year, all of whom were elected:

President,—D. B. St. John Roosa, M.D.
Vice-President,—Clarence Y. Blake, M.D.
Secretary,—J. Orne Green, M.D.
Publishing Committee,—J. Orne Green, M.D.; Charles E. Hackley, M.D.; R. F. Weir, M.D.
Committee on Progress of Otology,—Charles H. Burnett, M.D., and Clarence Y. Blake, M.D.

The same rules in regard to papers, proofs, and adjournment, as last year, were adopted: October 1 being the last day for the reception of articles for publication.

A communication was received from Drs. Blake, Roosa, and Pomeroy, in regard to an International Otological Congress, and, on motion of Dr. Roosa, it was resolved that a committee of three be appointed by the chair, who shall report at the next meeting of this Society as to the feasibility of holding an International Otological Congress in New York in 1876.

The President appointed as such committee, Drs. Roosa, Blake, and Knapp.

The minutes of the second and third sessions were read and approved, and the Society adjourned at 9.45 o'clock.

J. ORNE GREEN, *Secretary*.

MEDICAL SOCIETY OF THE COUNTY OF ALBANY, NEW YORK.

SEMI-ANNUAL MEETING, June 10, 1873.

Reported by JAMES S. BAILEY, M.D.

DR. ALBERT VAN DERVEER, PRESIDENT, in the chair.

AFTER the reading and approval of the minutes of the last annual meeting, the President remarked, "As the Society increases in numbers, its mortality

must also increase. During the last six months we have been called to mourn the loss of an unusual number by death, and I announce that Dr. John H. Becker died of pneumonia on June 1, aged 45 years.

"As our semi-monthly meetings have ended, I desire at this time to make some acknowledgment for the prompt and efficient manner in which you have given support to these meetings.

"We have held in all ten semi-monthly and two special meetings. These meetings have been uniformly well attended.

"There have been presented, at these meetings, seventeen papers, besides numerous pathological specimens illustrating the subjects considered. Also two important discussions have occupied the attention of the Society.

"In behalf of the officers, I desire to render to you our heartfelt thanks for the generous support you have given us thus far, to elevate our profession and to place our Society among the first and foremost in the State."

Dr. S. H. FREEMAN then rose and pronounced a eulogy upon Dr. Becker, the deceased member of the Society.

Dr. JAMES S. BAILEY, chairman of the committee on publication, presented the report, which, after much discussion, in which Drs. Craig, Porter, Northrop, Swinburne, Quackenbush, and McNaughton took part, was, on motion of Dr. Craig, accepted, and referred back to the committee for further consideration.

Dr. JAMES P. BOYD, chairman of the board of censors, then presented the following names for admission into the Society: James N. Haines, Alma S. Allen, J. H. Blatner, James S. Hill, G. A. Jones, J. H. Hannan, James P. Boyd, Jr., J. Emerson Allen, of Scranton, Pennsylvania, Frank Garbutt, and E. A. Green.

By vote of the Society, they were admitted members upon their complying with the by-laws.

The Vice-President, Dr. A. W. SHILAND, then delivered the semi-annual address.

Dr. FREEMAN moved a vote of thanks to Dr. Shiland for his beautiful address. Adopted.

Dr. JAMES S. BAILEY said that there were several names in the directory who had not paid their yearly dues, and offered a resolution:

"That any member of the Albany County Medical Society who shall be in arrears for two years in paying his yearly dues is not entitled to suffrage in this Society, nor shall he be hereafter reinstated unless back dues are paid, or without a unanimous vote of the Society.

"*Resolved*, That the Secretary obtain the names of such delinquents from the Treasurer and drop their names from the books."

Adopted.

The President then said:

"I would announce the following names as composing the committee called for by Dr. James S. Bailey's resolution regarding the proposed entertainment to be given to Dr. Peter P. Staats: Drs. James S. Bailey, James McNaughton, J. P. V. Quackenbush, S. H. Freeman, John Swinburne, Levi Moore, F. C. Curtis."

Dr. J. M. BIGELOW complimented the Society on the success and interest of their semi-monthly meetings, and offered the following resolution:

"*Resolved*, That the thanks of the Society are due to Drs. James S. Bailey and F. C. Curtis for the able and correct reports which they have written for the *Philadelphia Medical Times* and the *Buffalo Medical and Surgical Journal*, and also to the press of this city for their kindness in noting and reporting our meetings."

Adopted.

VOLTAIRE's definition of a physician is, "An unfortunate gentleman expected every day to perform a miracle: namely, to reconcile health with intemperance."

GLEANINGS FROM OUR EXCHANGES.

A NEW METHOD OF PERFORMING LITHOTOMY (*Edinburgh Medical Journal*, June, 1873).—Mr. A. Davidson, in a paper read before the Medico-Chirurgical Society of Edinburgh, describes and advocates a new mode of performing lithotomy. The staff used is simply a modification of Buchanan's rectangular one, the acute angle being replaced by a gentle curve and grooved on its inner aspect. The form of the external wound is semi-lunar, curved somewhat lower and deeper upon the left side than the right, in order to afford a freer drain on the side in which the prostatic wound is situated. Having exposed the membranous part of the urethra, this is opened, and a guide is introduced along the groove in the staff into the bladder. This guide, consisting of two parallel and connected bars or blades, capable of being separated by means of a screw, forms, when approximated, an instrument about five inches long, somewhat like a female catheter in size, straight, slightly flattened from above downwards, and grooved in the left side so as to permit the bottom point of the knife to slide along without escaping from it.

When this guide has been fairly introduced into the bladder, the staff is withdrawn, and the blades are separated by the screw *to such an extent as to render the tissues tense*. The knife used has a button-shaped extremity to fit the groove in the guide. The blade is narrow throughout, but is slightly triangular, becoming a little broader towards the handle than at the point. This knife is then carried along the groove so as to divide the tense resisting structures, *by its edge being brought into contact with them rather than by actual cutting*. The blades of the guide are now expanded; but should it be found that the required degree of separation cannot be effected without force, the knife may be passed along a second time to cut the structures that still resist. In no case should anything be incised except what is found to oppose gentle dilatation. The size of the calculus determines the extent to which the knife is to be used and dilatation effected. The blades of the instrument, having now been separated so far as the size of the stone seems to demand, serve as a conductor for the forceps, which slip along between them into the bladder. The stone is then extracted in the usual manner. Should the calculus be very large, the knife may be applied in the same way to the right side of the prostate, thus making a bilateral incision; but this is seldom required.

The advantages claimed for this operation are that the incision and dilatation are in proportion to the size of the stone and the resistance of tissues, that the guide for the knife acts at the same time as a conductor for the forceps and diminishes the difficulty of their introduction, and that inflammation of the neck of the bladder and pyæmia caused by bruising, and infiltration of urine, and pelvic abscesses, the result of too extensive incisions, are alike avoided.

PARALYSIS OF THE DIAPHRAGM (*British Medical Journal*, May 31, 1873).—Mr. C. Handfield Jones delivered a clinical lecture on the following case.

E. H., æt. 30, was admitted to St. Mary's Hospital, January 14, 1873. Had been sick two months; had had several severe falls; father had died of hæmoptysis; had had hæmoptysis himself. At the time of admission there was great hyperæsthesia of surface; lung- and heart-sounds good; normal percussion-resonance; upper ribs moved considerably in inspiration, lower ribs and abdomen scarcely moved at all; shortness of breath, aching and shooting pain in the left side; inability to lie down; no cough or expectoration, nor any swelling of the legs; sleeplessness. He was

ordered twenty grains of the saccharated carbonate of iron thrice daily, and ten grains of chloral hydrate at bedtime. He slept somewhat better for the next two nights. The chloral was continued, and he was ordered the following draught three times a day:

℞ Ammoniæ carb., gr. iv;
Ferri ammonio-citratis, gr. viij;
Tinct. nucis vom., ℥x;
Tinct. calumbæ, ℥x;
Aquæ, f℥j.

On the 18th the movement of the abdomen was much increased, and on the 24th the breathing was quite normal. The cure was complete and uninterrupted.

On reviewing the case, the phenomena of a positive kind were dyspnœa, orthopnœa, incapacity for exertion, insomnia, left side pain, altered respiratory movements, and paresis of the diaphragm; of a negative kind,—healthy state of the lungs, heart, and kidneys, and of the vascular system generally. The family history pointed to the probable existence of the tuberculous diathesis, his personal to the possibility of a traumatic lesion of the brain or cord.

The chief symptom was the singular inaction of the diaphragm, especially noticeable as the patient was a male. In considering the causes which are known to produce such inaction we can exclude pleurisy, peritonitis, lead-poisoning, and progressive muscular atrophy, as there was no sign of any of these conditions. Fatty degeneration of the muscle itself could not have existed, as was shown by the result of treatment, and there were none of the recognized features of hysteria. Two possibilities remain: one, that there was actual lesion of the nerve-centres; the other, that the disorder was a paralytic neurosis. The falls which he had undergone might seem to favor the former view; but had there been any contusion of the cord the injury could not possibly have been confined to the nerve-cells connected with the phrenic nerve. The history shows that there was entire absence of any paralysis of the limbs or sphincter. The patient is to be regarded, then, as having suffered a functional paralysis of the centres belonging to his phrenic nerves, from some cause which does not appear, but which is possibly connected with the hereditary tendency to tuberculosis.

Pulmonary Hemorrhage as a Cause of Consumption (*Dublin Journal of Medical Science*, May, 1873).—At a meeting of the Medical Society of the College of Physicians, Mr. J. M. Finny detailed three cases of consumption of the lungs following pulmonary hemorrhage. In all of them the individuals were young, in good health, and able to pursue their ordinary avocations up to the day and hour of the bleeding, and in all the hæmoptysis came on suddenly, without any symptom referable to the chest having been complained of or noticed, and was the starting-point of the future consumptive process. The three cases coincided in the important peculiarity that the lungs did not exhibit, at the time of the initiatory hemorrhage, any signs of previously existing or commencing organic disease, and that it was not until some days had elapsed that the signs and symptoms of pneumonic changes first exhibited themselves. Rejecting the theories that the hæmoptysis was the result of a diseased state of the walls of the arteries of the lungs, or that it was produced by undetected tubercles, Mr. Finny believes that in each case there occurred an accidental rupture of either a bronchial or pulmonary blood-vessel, following some undue exertion on the part of the patient. A portion of the blood was expectorated; but some remained in the smaller bronchi, and, either by gravitation or the inspiratory acts, became lodged in the alveoli of one or more lobules. Here, by its presence as a foreign body or by the retrogressive changes it underwent, it produced inflammation or "acute catarrhal pneumonia," which spread through various parts of the lobes and became recognizable by well-marked physical signs.

The patients perished during the high fever which attended the next step of the morbid process,—the "softening with ulceration" of the inflammatory products.

Abdominal Aneurism successfully treated by Proximal Pressure of the Aorta (*British Medical Journal*, June 14, 1873).—Dr. Headlam Greenhow communicated to the Royal Medical and Chirurgical Society a case of abdominal aneurism, occurring in an able-bodied seaman, æt. 28. On his admission to the Middlesex Hospital a globular tumor was found immediately above the umbilicus, beating forcibly with an expanding lateral as well as with a forward impulse. Its pulsations were arrested by firm pressure over the aorta above the tumor. The patient having been completely anæsthetized, Lister's tourniquet was applied between the tumor and the xiphoid cartilage, and screwed down until pulsation ceased both in the tumor itself and in the femoral arteries. On its first application the pressure was withdrawn after three-quarters of an hour, on account of vomiting, but in two subsequent operations it was retained for from three to four hours. On each occasion the lower extremities became cold and livid; the temperature between the ties was 90°; respirations shallow and gasping, 44 to 56 per minute; pulse 100 to 120; sphygmographic tracings over the radial pulse showed increased arterial tension. These symptoms subsided on removal of the pressure, but for several days the patient suffered much from pain, numbness, and coldness in the lower extremities, and from vomiting, the vomit containing altered blood. The urine was albuminous for two days. The pulsation in the seat of aneurism slowly decreased, until in about six weeks it disappeared entirely, nor was there any distinct tumor remaining; but above the umbilicus was an undefined, somewhat movable hardness. No pulsation could be detected in the aorta from an inch above the umbilicus downward, nor in the femoral, popliteal, or anterior tibial arteries. There had been no return of the trouble, although two years had elapsed, and the man was enjoying perfect health.

Compound Depressed Fracture of the Skull (*Irish Hospital Gazette*, July 1, 1873).—J. Stannus Hughes, M.D., reports a case in which the patient, having had his skull crushed by an accident, suffered the loss of large portions of the occipital and parietal bones. The removal of the fragments brought on a profuse hemorrhage from the longitudinal sinus, followed by the ejection of from three to five ounces of mingled cerebral substance and clotted blood; the brain could be seen pulsating strongly at the bottom of the wound. Contrary to all expectation, recovery was prompt and uninterrupted, except by occasional attacks of retention of urine and of intense priapism. The only permanent trouble resulting from the injury was an equilateral hemiopia, due probably to some lesion in the course of the left optic tract.

Position of Twins (*British Medical Journal*, June 28, 1873).—S. C. Taylor, M.D., writes that in thirteen cases of twins which he has attended the positions were as follows:

Both children with head presentation . . .	6
Both children with breech presentation . . .	2
First child head, second child breech, presentation	2
First child breech, second child head, presentation	1
First child head, second child foot, presentation .	1
First child foot, second child head, presentation .	1
Total number of cases . . .	13

THE VIRTUES OF WHISKY.—The following curious extract from Holinshed's Chronicles, 1577, will be of interest to the advocates of whisky as a therapeutical agent of great power:

"There is used an ordinary drinke of *aqua vitæ*, so qualified in the makyng that it dryeth more and inflameth lesse than other hote confections. One Theoricus (*Episc. Hermenensis juxta Bononiam*) wrote a proper treatyse of *Aqua Vitæ*, wherein he prayseth it to the ninth degree. He distinguisheth three sortes thereof—*simplex*, *composita*, and *perfectissima*. . . . *Beying moderately taken*, sayeth he, it sloweth age; it strengtheneth youthe; it helpeth digestion; it cutteth fleume; it abandoneth melancholie; it relisheth the harte; it lighteneth the mynd; it quickneth the spirites; it cureth the hydropsie; it healeth the strangury; it pounceth the stone; it repelleth grauel; it puffeth awaie ventositie; it kepyth and preserveth the hed from whyrling—the eyes from dazelyng—the tongue from lispyng—the mouthe from snafflyng—the teethe from chatteryng—the throte from ratlyng—the weasan from stieflyng—the stomach from wamblyng—the harte from swellyng—the bellie from wirtchyng—the guts from rumblyng—the handes from shiueryng—the sinowes from shrinkyng—the veynes from crumplyng—the bones from akyng—the marrow from soakyng. . . . *And trulie it is a soueraigne liquor, if it be orderlie taken.*"

MISCELLANY.

HOW TO CURE A COLD.—The whole fraternity of editors, and all of their readers, owe a debt of gratitude to one of their members, the editor of the *Danbury News*, for a report of the following case, instituted by, though not practised himself, but by one of his corps. *Treatment:* He boiled a little boneset and horehound together, and drank freely of the tea before going to bed. The next day he took five pills, put one kind of plaster on his breast, another under his arms, and still another on his back. Under advice from an experienced old lady, he took all these off with an oyster-knife in the afternoon, and slapped on a mustard paste instead. His mother put some onion drafts on his feet, and gave him a lump of tar to swallow. Then he put some hot bricks to his feet and went to bed. Next morning another old lady came in with a bottle of goose oil, and gave him a dose of it on a quill, and an aunt arrived about the same time from Bethel, with a bundle of sweet fern, which she made into a tea and gave him every half-hour until noon, when he took a big dose of salts. After dinner his wife, who had seen a fine old lady of great experience in doctoring, on Franklin Street, gave him two pills of her make, about the size of an English walnut and of a similar shape, and two tablespoonfuls of home-made balsam to keep them down. Then he took a half-pint of hot rum, at the suggestion of an old sea-captain in the next house, and steamed his legs with an alcohol bath. At this crisis two of the neighbors arrived, who saw at once that his blood was out of order, and gave him half a gallon of spearmint tea and a big dose of castor oil. Before going to bed he took eight of a new kind of pill, wrapped about his neck a flannel soaked in hot vinegar and salt, and had feathers burnt on a shovel in his room. He is now thoroughly cured, and full of gratitude.—*The Sanitarian.*

AN ENEMY OF INDIA.—An interesting discussion was recently held in the House of Lords regarding the tigers, which cause such frightful ravages in the East Indies. In Lower Bengal 13,400 persons have been torn to pieces by wild animals in less than six years; and it is estimated that in the whole Indian peninsula 10,000 people perish annually in the same way. In 1869 a single tigress stopped for several weeks the traffic on a road usually much frequented, and made one hundred and twenty-seven victims to her fury. In the Haydunka, from 1867 to 1869, one tiger is credited with killing one hundred and eight persons; and this sanguinary creature counts among his exploits the extermination of a whole family, composed of the father, the mother, and three children. The ravages of tigers among the live stock are naturally enormous. The loss is reckoned at an average of 25,000,000 francs annually. In certain districts emigration has reached considerable proportions. In one central province the inhabitants of thirteen villages fled before a tigress.

The British government has accordingly taken measures for hunting down these enemies of India by a wholesale destruction. It is a little remarkable to find one writer in the London *Times* protesting against the contemplated destruction of tigers, as "wholly unnecessary and unsportsmanlike." He declares that the tiger is not so bad as he is painted, and that the animal is inclined "rather to flee the habitation of man and his presence than to encounter it, far less to court it. Nothing can be more foolhardy and culpable than the way in which the bamboo-cutters, men and women, risk their lives in gaining their precarious livelihood; and these are always the principal victims. They lay themselves out for and tempt, by their solitary habits, the vicious propensities of the animals. Far better to await the completion of the Teheran railway, which will, doubtless, convey sufficient agents of destruction in the shape of our present grouse-shooters to render, in a very few years, our glorious East bare enough of all that exhilarates in the shape of dangerous sport."

ON July 5, ninety-four persons were arraigned at the municipal court of Boston for drunkenness.

In Boston one cannot sell beer, and can sell oxalic acid. In Vienna one cannot sell poison, and can sell beer. We send schoolhouses to Vienna.—*Boston Medical and Surgical Journal.*

DEPILATORY MIXTURE.—A new depilatory mixture is recommended by Professor Boettger, consisting of one part of crystallized sulphydrate of sodium and three parts of prepared chalk. Mixed with water and applied to the skin, it effects the easy removal of hair.—*Med. and Surg. Reporter.*

STATISTICS show that hydrophobia is periodic in character.—*N. Y. Medical Record.*

GLACIAL acetic acid is a good solvent of iodine.

THE U. S. Government having purchased the grounds of the University of Pennsylvania, on Ninth Street above Chestnut, as a site for public buildings, and the new Medical Hall in West Philadelphia not being yet completed, the Trustees have secured, for the use of the Medical Department during the coming winter, the commodious and convenient building formerly occupied by the Pennsylvania Medical College, No. 250 South Ninth Street. All communications should be addressed to

ROBERT E. ROGERS, M.D.,
Dean of the Medical Faculty of the University of Pennsylvania,
250 South Ninth Street,
or P. O. Box 2838, Philadelphia.

DANGEROUS BALLAST.—An "old cruiser" sends us the following account of a fever originating in a naval vessel a few years ago, and traced to its cause. A French frigate, well ordered, with a crew in health, arrived at the port of Cobija, in the desert of Atacama, where, after a few days, a fever known to the French surgeons as the *fièvre pernicieuse* made its appearance and spread in the ship.

As rain is unknown in that district of dry sand, nor any vegetation within leagues, and the vessel in perfect cleanliness, the disease was a surprise. At last it was discovered that a boat-load of sand had been placed in the hold, from which a slight odor arose perceptible to the smell and with a slight astringent effect on the nostrils. This sand, brought from the clear beach, being removed, and the locker cleaned with chlorides, the fever entirely ceased.

At Aspinwall, it is known that a somewhat like result occurs when vessels there take in ballast from the convenient but wet shore-line of the bay. Such vessels generally find fever to break out after having been at sea several days; while the more experienced traders, obtaining stones and dry ballast from a space inland, are for the most part exempt.—*The Sanitarian.*

ELIXIRS.—Pharmaceutists are wild upon the subject of elixirs. A very few of them may be good, some of them may answer for placebos, but a majority of them are worthless. An elixir of wine, beef, and iron sounds well; but I read upon the label of a bottle handed me a few days since, a more captivating title still. It was an elixir of wine, iron, beef, and horseradish. Shade of Epicurus! What stomach could resist it? Tasteless medicine, such as sweet quinine, may have tempted the most wary of us to invest, but experience has taught us they are a great deal like whisky with the "fight" taken out of it, leaving to further distillation only water and burnt sugar. Medicines have an individuality. Aromatics are hot and pungent, tartar emetic produces nausea, quinia is bitter, and if it must be changed it is quite as well to make it more bitter still, because all these qualities are agencies in the relief of disease. —*President's Address before the Ohio State Medical Society*, 1873.—*The Clinic.*

THE *Michigan University Medical Journal* ended its career with the number for April, 1873.

WEEKLY RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FOR THE WEEK ENDING SATURDAY, JULY 26, 1873.

DISEASES.	Adults.	Minors.	DISEASES.	Adults.	Minors.
Apoplexy	6	...	Fever, Scarlet	...	1
Burns and Scalds	...	1	" Typhoid	7	1
Cancer of Stomach	1	...	" Typhus	1	...
" Uterus	1	...	Hemorrhage	3	...
Casualties	4	1	Hooping-Cough	...	3
Cerebro-Spinal Meningitis	1	2	Inanition	...	11
Cholera Infantum	...	138	Inflammation of Bladder	1	...
" Morbus	3	1	" Brain	1	12
" Sporadic	1	...	" Bronchi	1	2
Cirrhosis of Liver	1	...	" Heart	3	...
Compression of Brain	...	1	" Kidneys	2	...
Concussion of Brain	1	...	" Lungs	4	6
Congestion of Brain	...	5	" Peritoneum	3	1
" Lungs	1	...	" Stomach & Bowels	6	8
Congestive Chill	...	1	Jaundice	...	1
Consumption of Lungs	41	7	Marasmus	...	26
Convulsions	1	18	Measles	...	1
" Puerperal	1	...	Murder	1	...
Debility	6	13	Obstruction of Bowels	1	...
Diarrhœa	1	6	Old Age	11	...
Diphtheria	...	1	Paralysis	3	1
Disease of Brain	...	1	Rheumatism of Heart	1	...
" Heart	8	1	Septicæmia	...	1
" Hip	1	...	Softening of Brain	2	...
" Kidneys	2	...	Still-Born	...	13
" Liver	1	...	Sunstroke	1	...
Dropsy	2	...	Syphilis	1	...
" of Abdomen	2	...	Tetanus	...	1
" Brain	...	5	Tumors	1	...
" Chest	2	...	Ulceration of Bowels	1	...
" Heart	1	...	Unknown	1	...
Drowned	3	4	Uræmia	2	...
Dysentery	2	...	Worms	1	...
Effusion on Brain	...	1			
Epilepsy	...	1			
Fatty Degene'n of Heart	1	...			
			TOTALS	154	297

METEOROLOGICAL OBSERVATIONS TAKEN AT THE SIGNAL OFFICE, PHILADELPHIA, DURING THE WEEK ENDING SATURDAY, JULY 26, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain In.
JULY.				
Sunday 20th	29.99	73	Fair.	.....
Monday....21st	30.06	73	Fair, Clear.	.....
Tuesday....22d	30.22	76	Fair, Clear.	.....
Wednesday....23d	30.16	81	Clear.	.....
Thursday....24th	30.00	82	Clear, Fair.	.....
Friday 25th	29.96	82	Clear, Fair.	.....
Saturday 26th	30.04	81	Fair, Light Rain.	.10
Means	30.06	78		.10

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JULY 22, 1873, TO JULY 28, 1873, INCLUSIVE.

WOODHULL, ALFRED A., ASSISTANT-SURGEON.—Assigned to duty at McPherson Barracks, Atlanta, Ga. S. O. 131, Department of the South, July 23, 1873.

BROOKE, JOHN, ASSISTANT-SURGEON.—Relieved from requirements of par. 2, S. O. 78, c. s., from these Headquarters. S. O. 87, Department of the Columbia, July 12, 1873.

PHILLIPS, H. J., ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon, Camp Warner, Oregon. S. O. —, Headquarters Department of the Columbia, "in the field," July 8, 1873.

LIPPINCOTT, H., ASSISTANT-SURGEON.—Assigned to duty at Camp Lowell, Arizona Territory. S. O. 53, Department of Arizona, July 8, 1873.

KING, W. H., ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Woodhull, assigned to duty at Yorkville, South Carolina. S. O. 131, c. s., Department of the South.

PHILADELPHIA MEDICAL TIMES.

SATURDAY, AUGUST 9, 1873.

ORIGINAL COMMUNICATIONS.

A FATAL CASE OF CONGENITAL TRACHEO-ŒSOPHAGEAL FISTULA.

BY D. S. LAMB, M.D.,

Acting Assistant-Surgeon, U.S.A.

THE patient in this case was seven weeks old at death, March 31, 1873. From its birth almost every attempt at nursing was attended with strangling, and sometimes with lividity of skin. The mother stated that during a portion of the previous summer she had been roughly treated by her husband while he was intoxicated; on several occasions he had violently choked her.

I saw the child for the first time about sixty hours before its death. The most prominent symptom was flatulence, which was abundant, and very painful; there was no vomiting, but there were several thin, greenish stools daily; it nursed but little. The respirations were very hurried, numbering at one time as many as seventy per minute; each respiratory effort was attended with a to-and-fro movement of the head. The cough was slight, infrequent, short, hacking, sometimes provoked by the strangling; occasionally a little froth was brought to the lips, but never thick or dark sputa or blood. The nares were dilated at each inspiration; the mouth was sometimes opened to breathe more easily. He was drowsy much of the time. As a rule, the skin of the trunk and extremities was warm, smooth, and not dry; there was no *pungent* heat; the head at times showed some moisture; the pulse was frequent; the tongue coated thinly whitish.

At the autopsy, a small granular deposit was found upon the mucous membrane of the trachea, just below the fistulous opening; it was suspected to be from a milk-clot, but was washed off and lost before its composition could be made out with certainty. The right lung was very dark and hepatized throughout; there was also slight pleuritic adhesion between the upper and middle lobes; no fluid or lymph in the cavity. The left lung was somewhat emphysematous in the superior lobe; the anterior lower margin to the extent of about a square inch was in the same condition as the right lung; there was neither fluid, lymph, nor adhesion in the left pleura. The heart was normal. Stomach and intestines distended with flatus. Liver, spleen, and kidneys normal. Mesentery somewhat congested.

The head was not examined, except so far as to notice the condition of the palate, which was found normal.

The hyoid bone, larynx, and portions of the trachea and œsophagus were removed. In the median line, nearly half an inch below the lower border of the cricoid cartilage, was a fistulous communication between the two tubes, having a longitudinal diameter of three lines and a transverse diameter of one line; the direction of the fistula was downwards and backwards, the opening in the œsophagus being at a lower level than that in the trachea; the edges were smooth and rounded, and the mucous membrane normal. The danger of passage of the contents of the œsophagus into the trachea appears to have been guarded against to some extent by the close apposition of the walls of the fistula.

This specimen was contributed to the Army Medical Museum, and is exhibited as Number 1161 of the Medical Section. To show the fistula more distinctly, a whalebone probe was introduced, and the hardening action of the alcohol used as a preservative fluid has rendered the fistulous opening permanently dilated.

I believe this form of defective development of the trachea and œsophagus to be extremely rare. *I have not found any such specimen described either in the museum catalogues or works on pathological anatomy or teratology to which I have had access.*

It does not belong to what have been called "congenital fistulæ of the neck," originally described by Dzondi and Ascherson, since these fistulæ have *external* communications, either asymmetrical (usually in the median line) or symmetrical, close by the internal insertion of the sterno-mastoid muscles; these also have the internal communication with but one tube, either the trachea or œsophagus, never with both in the same case; and sometimes, indeed, the communication with either tube is problematical. Again, these fistulæ have never been recorded as endangering life. (See "The British Record of Obstetric Medicine and Surgery for 1848," published at Manchester, England, and edited by Charles Clay, M.D. Also, "Die Missbildungen des Menschen," by Dr. Förster, Jena, 1865, page 101.)

Probably it should be classed along with those congenital tracheo-œsophageal fistulæ with which are conjoined other malformations of the œsophagus, as, for instance, cul-de-sac termination; but classed as a *variety* in view of the absence of any such complication.

A specimen of "cul-de-sac from a case of imperforate œsophagus, in which the upper portion of the tube terminated on a level with the bifurcation of the trachea, the lower portion of the œsophagus communicated above with the posterior surface of the bifurcation of the trachea," was obtained by me at an autopsy made for Surgeon C. H. Laub, U.S.A., and appears as Number 812, Medical Section, Army Medical Museum. This case was published in the Museum Catalogue, Washington, D.C., 1867. The child lived to be eleven days old; was said to have been able to swallow small quantities of liquid, which produced a gurgling sound in passing through the trachea.

The specimens of congenital deficiency of the neck or its contained viscera, or of the thoracic portions of the trachea or œsophagus, so far as I have found them described in museum catalogues, are very few in number, and all belong to *one* class, viz., *cul-de-sac pharynx or œsophagus*, with or without fistulous communication with the air-passages.

In the Catalogue of the Museum of the Army Medical Department, Fort Pitt, Chatham, London, 1845, page 385, is described as Specimen 2707, "Œsophagus wanting, the pharynx terminating opposite the cricoid cartilage. Taken from an encephalous fœtus."

The Catalogue of the Museum of the Royal College of Surgeons of Ireland, Dublin, 1834, Anatomy, volume i. page 152, describes as Specimen G, a. 53, "A case of malformation of the pharynx and trachea in an infant. The pharynx, which is unusually wide, terminates below in a cul-de-sac, without having any connection with the œsophagus. The œsophagus takes origin from the posterior wall of the trachea, by an opening which is so smooth and wide as to render the passage from the larynx into the stomach as direct and easy as that along the trachea into the lungs. See Dublin Hospital Reports, volume v. page 310.—J. H."

The Catalogue of the Royal College of Surgeons of England, London, 1872, Teratological Series, page 91, describes as Specimen 394, "The tongue, pharynx, trachea, and œsophagus of a human fœtus, with a small portion of the diaphragm and stomach. The œsophagus opens into the trachea just above its bifurcation; it is not connected with the pharynx. The trachea has been opened in front, and a green-glass rod has been inserted into the œsophagus."

395. "A similar preparation from a new-born child, in which the lungs and stomach are also preserved. The œsophagus is united with the pharynx by a muscular band."

396. "A similar preparation from a human fœtus; the lungs are abnormal in form, and have not been inflated with air."

In the Catalogue of the Dupuytren Museum ("Manuel d'Anatomie Pathologique" of Ch. Houel, Paris, 1862, page 778) is described as Specimen 51, "Small child, which lived three days; the œsophagus terminates at its middle part in a cul-de-sac; the lower part communicates with the bronchi."

The Catalogue of the Brolik Museum, Amsterdam, 1865 (Anatomy), page 442, describes as Specimen 311, "Œsophagus and trachea of a child who lived only five days. It could swallow nothing; all it took was rejected, and intermixed with air-bubbles. A little above the origin of the bronchi, the œsophagus terminates in a blind sac; a little lower it is renewed, to open soon into the stomach. The blind sac of the upper part communicates by an oval opening with the trachea. The separation between the œsophagus and the trachea, which is developed from a simple primordial canal, has taken place only imperfectly. Plate xcvii. [xcix. ?], Figures 2 and 3."

The Catalogue of the Boston Society of Medical Improvement, Boston, 1847, page 128, describes as Specimen 456, "Malformation of the œsophagus, from a patient of Dr. Walter Channing. Superiorly, the canal can hardly be said to exist, as it terminates at once in a cul-de-sac behind the larynx; inferiorly, it opens freely into the trachea, just above the bifurcation, but below this it is sufficiently well developed. The child lived five days, and died, at last, apparently from pneumonia, every attempt to swallow liquids causing great distress, with lividity, and almost suffocation. 1839."

Also, 457, "A second specimen, similar to the last, from a patient of Dr. J. Bigelow. The child was born at the full period, and well developed. On the second day it was observed to take the breast with avidity, but after a few minutes seemed to vomit; liquids also when put into the mouth were immediately rejected; this continued, with much distress and an increasing emaciation, till the eighth day, when it died. Occasionally the respiration was obstructed by a kind of spasm, and there was constantly heard over the chest a mucous, and towards the last a subcrepitant, râle.

"The upper part of the œsophagus is large, quite muscular, and terminates in a cul-de-sac about opposite the middle of the trachea. The lower portion, which is smaller, opens freely into the trachea just above the bifurcation. The stomach was much distended, containing a considerable quantity of brown, viscid fluid, and a large quantity of extremely viscid mucus, which adhered almost everywhere to the inner surface, the membrane itself being softened, as if by the action of gastric juice. The whole of the left lung, except a trace of healthy tissue at the base, and about one-third of the lower lobe of the right lung, was in a state of the most complete apoplexy, looking like a mass of black-currant jelly. The uterus was malformed, and the vagina entirely wanting, though there was nothing unusual in the external organs. It was found, also, that the common trunk of the left subclavian and jugular veins entered the right auricle by a separate opening, instead of uniting with the vena cava. The other organs were well formed.

"It is remarkable that this malformation of the œsophagus, which is, according to M. Andral, quite rare, has been met with in two other cases, at least, in this neighborhood, one of them terminating in eight days, and the other in about twenty-four hours."

The following catalogues contain no specimens of congenital deficiencies of either the trachea or œsophagus:

St. George's Hospital, London, 1866.

St. Bartholomew's, London, 1846 to 1852.

Guy's Hospital, London, 1863.

Army Medical School, Military Surgery, London, 1867.

Royal College of Surgeons, Edinburgh, 1834, Part I.

Thibert Museum, Paris, 1860.

Strasbourg, 1843.

Leipzig, 1819.

Vienna University, Human Anatomy, Vienna, 1869.

Braunschweig, 1854.

Warren Anatomical Museum, Boston, 1870.

New York Hospital, New York, 1860.

Pennsylvania Hospital, Philadelphia, 1869.

I wish to call attention to a similarity in cause of death in several of the cases just described. The two cases from which were obtained Specimens 456 and 457, Bost. Soc. Med. Imp., appear to have ter-

minated fatally from *pneumonia*, as did the case reported by me. In Case 456 there was great distress, with lividity and almost suffocation, on attempting to swallow. In 457 there was also much distress, occasionally a kind of spasm of the respiratory muscles, and mucous râles heard over the chest. At the autopsy the lungs were found in a state described as *currant-jelly* hepatization. This term would very well fit the condition of the lungs in the case reported by me.

It seems quite possible for fluids to find their way into the trachea of an infant, even without any obstruction of the œsophagus. In the *Lancet*, London, May 10, 1873, page 669, is an account of the case of a child, aged "one year, which was fed by the bottle, put to bed at six o'clock, and died at midnight with all the signs of intense dyspnœa. At the post-mortem examination (ten hours after death) the two lower lobes of the lungs were found quite softened, grayish, having a smell of butter, and, in a word, having undergone the action of gastric juice. Altered milk was found in the trachea and bronchi. In this case the milk contained in the stomach, and which, doubtless, had been taken in excess, was vomited, and, on account of the horizontal posture, had penetrated into the air-passages.

"Dr. Parrot drew the attention of his colleagues to the importance of the fact from a medico-legal point of view. He thinks that this occurrence must be rather frequent, as he has already witnessed two cases in his own sphere of observation."

Dr. Förster (loc. cit.), describing the cul-de-sac œsophagus, states that the malformation "is observed in usually well-formed individuals, that the œsophagus in its upper part ends blindly, and thence to the cardia appears only a solid cord; sometimes the upper and lower part of the œsophagus exists but the middle is wanting, and is replaced by a solid cord (Plate xxiv., Figure 19). In other cases the œsophagus ends in its upper third blindly, and forms with the pharynx a diverticular pouch, but at the same height with the blind end of this pouch, or perhaps a little lower down, the œsophagus continues, but opens above into the posterior wall of the trachea (Plate xxiv., Figures 17 to 22). All these defects shut off viability, and the suckling dies the first day after birth [one case above reported lived *eleven* days]. They depend partly upon an arrest of development of the œsophagus at the stage of development in which it was yet solid, partly upon an incomplete separation of the trachea from the œsophagus with which it originally cohered."

Rokitansky, Pathological Anatomy, Vienna, 1861, volume iii. page 128, considers the cul-de-sac pharynx conjoined with a communication of the œsophagus with the trachea as the result of a destructive process in the fœtus.

Andral, Pathological Anatomy, Brussels, 1857, volume i. page 474, refers to a case reported by Astley Cooper "in which there was complete absence of the œsophagus, the pharynx terminated in cul-de-sac, and the stomach was without cardiac orifice; the child lived *eight* days."

In conclusion, I would refer to the following works for interesting discussions of the subject of cul-de-sac œsophagus:

J. H. Hebers, Pathological Anatomy, Bonn, 1839, volume ii. pages 142 and 295.

E. Klebs, Pathological Anatomy, Berlin, 1868 to 1870, page 164.

Ch. Houel, Pathological Anatomy, Paris, 1862, pages 445 and 495.

Thomas Hodgkin, Morbid Anatomy, volume ii. Part I., London, 1840, page 247.

M. C. Billard, Diseases of New-Born Infants, Paris, 1833, page 494.

Hermann Lebert, Pathological Anatomy, Texte II., Paris, 1857 to 1861, page 157.

I have not found either in St.-Hilaire or Serres anything bearing especially upon the subject of this paper.

THE USE OF ATROPIA IN OPIUM-POISONING.

BY DR. H. C. WOOD, JR.,

Clinical Lecturer on Diseases of the Nervous System in the University of Pennsylvania.

THE following case and remarks were sent to me just as given below, by Dr. Robert F. Brooks, of Carthage, Missouri, and seemed to me of such interest that, with his consent, I have sent them to the *Philadelphia Medical Times*. He wished from me an opinion and answers to his inquiries; and perhaps it may not seem egotistical if I give them in print.

In the first place, it is extremely probable that the oak bark, either by its action upon the mucous membrane, or by forming a tannate of the alkaloid, was the cause of the long delay in the production of symptoms by the morphia. In regard to the use of atropia, it seems to me to have been in a great measure judicious.

The point at which to cease the exhibition of the atropia is always a most delicate one to decide; and I can offer no infallible guide. It should not be forgotten that the contraction of the pupil in the advanced stage of opium-poisoning is not due solely to the drug, but also to the accumulation of carbonic acid in the blood from impaired respiration. It is by no means certain that atropia and carbonic acid are antagonistic, even in the sense that atropia and morphia are. Further, the weight of the present evidence seems to me to be in favor of the view that morphia and atropia are not, as regards the pupil, antagonistic. By this I mean that morphia causes contraction by acting on the nerve-centres, atropia, even when injected into the blood, dilatation, by acting locally upon the peripheral nerves of the eye, just as when dropped into the eye. If this be so, it is evident that the state of the pupil does not afford any sure indication as to which drug is influencing most powerfully the nerve-centres.

I do not myself believe the condition of the pupils should be allowed to determine the question as to the further use of the counter-poison, but that the judgment should be made up by surveying the

whole field,—the condition of the respiration, the tendency of the symptoms to become worse or better, the depth of the coma, etc., etc., all being taken into consideration. The cardinal principle *not to give more atropia than is absolutely necessary* should never be lost sight of. Thus, in the present case, as respiration had advanced from naught to ten times a minute, I think it would have been more judicious not to have given the last two injections of atropia, but to have waited to see if the respirations would not rise still more without its further exhibition.

Some experience has shown us that the effect of atropia in these cases, where it once fairly becomes apparent, goes on increasing, so that it may be some hours after the last injection before the mydriatic symptoms are developed in their fullest intensity.

Indeed, in the present case the very noticeable circumstance that the respirations finally rose to double their normal frequency renders it highly probable that the two last injections were unnecessary; and if they were unnecessary they were harmful. If the patient had been a robust man, he very likely would have recovered, as death evidently was due not directly to the poison, but to a secondary exhaustion, coming on after, probably, a large portion of the alkaloid had been eliminated. In conclusion, it is perhaps allowable to call attention to the very striking confirmation which the case affords of my opinion, or belief, that atropia does good in opium-poisoning by acting upon the respiratory centres.

CARTHAGE, MO., June 30, 1873.

On the evening of June 27, 1873, I was called four miles in the country to see Mr. Jackson Gates, a thin tall man, aged 65, nervous, dyspeptic for twenty-five years, whom I found suffering from an attack of cholera morbus. He had cramps of legs, and pain in belly, and was trying to keep from evacuating his bowels, as he fancied the frequent stools (as of soap-suds) made him very weak. He said he had taken nothing but a draught of infusion of oak bark.

I arrived at 9.40 P.M., and during the next hour gave him three doses of sulph. morphia,—in all, between three-quarters of a grain and one grain. I now made up seven papers, each containing $\frac{1}{8}$ gr. morph. sulph. and $\frac{1}{4}$ gr. opium, and gave directions to give one at 11 P.M., and every hour afterwards if his distressing symptoms continued; to stop the medicine if he was at ease or slept.

Returned the next morning at eight o'clock, and found him drowsy, though easily wakened. Pupils not contracted, the conjunctiva red, and excessive itching of the skin. His son, who nursed him, had given the medicine every hour, and had judged it best to give six of the powders, stopping at 5 A.M., or four hours before my second visit. I left him a tonic, and returned home suspecting nothing.

I was recalled just before one o'clock in the afternoon, with the news that my patient could not be wakened, and on arriving, at 1.40, found that he had become quite drowsy at 9 A.M., and could not be waked after 10 A.M., getting worse and worse. His pupils were mere points; his respirations from 2 to 3 per minute, and stertorous; his pulse less than 60; his skin purple; his finger-nails black.

I quickly dashed several pailfuls of cold water, with force, on his bare face, neck, breast, shoulders, and belly, called him loudly, and roused him so that he begged us to quit. We made him get up and walk, one on each side of him; made him swallow several tablespoonfuls of freshly-ground mustard, a teaspoonful of sulphate of zinc, a tablespoonful of powdered ipecac, and a good deal of warm water. And now, as he refused to walk any more, and commenced to fall down asleep, we again dashed cold water on him, and made him move on. After this he began to be nauseated, and was enough awake to propose to put his finger in his throat so that he might vomit. In this manner we succeeded in getting him to vomit quite freely. At 5 o'clock we began to give him strong coffee, and he got better, yet needed continual nudging and washing of the face with cold water to keep him awake.

Towards 7 o'clock P.M. I obtained the following solution:

℞ Atropiæ, gr. j,
Acid. acetic., gtt. viij,
Aquæ, ℥j. M. Fiat solutio.

and gave, hypodermically, at 7 P.M., gtt. vij.

His pulse now was 60; at 7.26 pulse 108, and pupils slightly dilated. As the atropia solution dropped from the bottle, one drop proved to be equal to $\frac{1}{3\,3\,6}$ gr., or 8 gtt. $= \frac{1}{4\,2}$ gr.

He now seemed a little better.

Second injection, of gtt. viij, at 9 P.M. Pulse 102, and pupils dilated a little more. Is taking coffee, yet grows worse rapidly.

10.30 P.M.—Douche, walking, shaking, etc., fail, and he can take no more coffee. The atropia acted so feebly that I was discouraged, and did not press it.

At 10.30 P.M. I laid him on a bed and used artificial respiration and jerking for half an hour, when he began to breathe at the rate of eight times a minute.

Third injection, of gtt. x, 12.49 A.M., Sunday, 29th.

3 A.M.—He will not breathe except by jerking, and so continued until afternoon at 3.15 P.M., we all the while staying by him and regularly jerking his body one-fourth circle over at the rate of eight times a minute.

At 3.13 A.M. gave fourth injection of gtt. x.

At 5.45 A.M. pulse 108, and pupils dilated to say twice their natural size.

Fifth injection at 6 A.M., of gtt. x.

I now went home to get a catheter, and happened to think of Dr. H. C. Wood's article in the *American Journal of the Medical Sciences* for April, 1873, as to the use of atropia in cases of opium-poisoning. I eagerly read it, and resolved to press the atropia till I made my patient breathe.

Returned before 9 A.M., and found my patient livid, and that his attendant had been rolling and jerking him assiduously, hardly able to keep his breath in him.

Sixth injection, of gtt. xij, at 8.52 A.M.

Catheterize (enema of whisky ℥ij, milk and egg) at 9.30 A.M.

Seventh injection, of gtt. xij, at 10 A.M.

At 10.30 enema of whisky ℥ss, with milk and an egg. Forced respirations, eight to the minute.

Eighth injection, at 11.8 A.M., gtt. xij. Enema at 11.30 A.M. Am sure by this time that atropia helps his breathing; that is, one need not jerk him so hard to keep him breathing. Pulse of more jerking character.

Ninth injection, at 12 o'clock, of gtt. xij.

Tenth injection, at 1 P.M., of gtt. xij. Enema at 1.30.

Eleventh injection, of gtt. xij. Respirations same. Pulse 108. Enema at 2.40 P.M. Now breathes a little by his own effort, anticipating the monotonous jerking. Pupils do not dilate any more, but stay about twice the natural size.

Twelfth injection, of gtt. xij, at 3 P.M., and at 3.15 P.M. respires voluntarily, at eight times a minute, for the first since 3 A.M. Respirations not stertorous.

He now has twitchings of the muscles, especially of

the shoulders, then of arms, then of chest, and notice when they twitch he at once gasps for breath.

Enema at 3.45 P.M. Pulse 108. Respirations 10.

Thirteenth injection, of gtt. xij, at 4.9. At 5.10 P.M. respirations 12, pulse 108.

At 5.50 P.M. fourteenth and last injection, of gtt. xij. Pulse rises to 120 a minute, and seems weaker. Respirations 12 to the minute.

At 6.30 P.M. use catheter, and then give enema of whisky, etc.

At 7.45 P.M. respirations 16. Enema at 8.30 P.M.

At 10, 12, and 2 o'clock in the night has so much fever that I only give enemata of milk and water. His trembling increases, and before 4 A.M. he coughs and commences to groan, and then to move a little.

At 4 A.M. pulse weaker, 120, and intermits. Give enema of ℥ss whisky, etc. He now continually trembles and jerks. All enemata are retained till we use the catheter at 6 A.M., when he evacuates the bowels.

Between 5 and 6 A.M. of 30th begins to swallow: so we give, by the mouth, water, milk, whisky, and broth. He now begins to call out in delirium; opens his hitherto closed and dead-looking eyes; looks wildly here and there; sets the dog after the pigs, and so on. Respirations 36 to the minute; color natural. From this time we endeavor to keep up his strength by stimulants, broth, milk, and enemata of milk, but to no purpose. He grows worse, collapses at 4 P.M., and dies at 5 P.M. Two hours before death his pupils widely dilate.

Remarks.—During Sunday, June 29, while using atropia, face and neck were scarlet color. On weighing specimen of opiate given, I concluded that he could not have taken, from 9.40 P.M., 27th, till 5 A.M., 28th, or seven hours and twenty minutes, more than gr. 1¾ of sulph. morphia, and gr. 1¼ opium.

The twitchings of muscles and delirium followed the use of the atropia; yet the last atropia was used before 6 P.M. of the 29th, while he did not become delirious until 5 A.M. of the next day. As soon as the injection was given, the skin began to sink to its natural level, and soon afterwards appeared natural.

Did the atropia accumulate and overwhelm the system? How tell when you have given enough? Stillé, vol. i. p. 743, 2d ed., says, "Pupil is an infallible index," etc. Here it was not. My guide was the waking of the respiratory centres: when I was sure he could breathe well, I stopped using the atropia.

Could the infusion of oak bark spoken of have astringed the walls of the stomach to such an extent that the morphia could not be absorbed for several hours, except in very small quantity?

I have calculated that nearly one-half of a grain of atropia was injected.

ROBERT F. BROOKS, M.D.

A CASE OF FRACTURE OF THE SKULL.

Reported by EMORY ESHLEMAN, M.D.

ON the 18th day of July, 1872, Mr. W. S., while following his usual occupation, horse-shoeing, received a violent kick on the head from a horse in proximity to the one upon which he was engaged. Immediately succeeding the occurrence of the accident, two homœopathic practitioners of medicine and surgery, named respectively Stiles and Middleton, drove to the door, and, of course, had their attention called to the injured man, who was lying bleeding and unconscious on the ground. He in a few moments, however, became so far conscious as to inform those around him of the number of his house. Under the direction of these medical (?) gentlemen, he was immediately placed in a carriage and conveyed to his home, no effort having been made, upon their part, even to arrest the hemorrhage, which, from all accounts, must have been profuse. Arriving at the house of the injured man, these gentlemen immediately made an examination of the condition of affairs, and, after using the probe quite freely, informed his anxious wife, in answer to her interrogatories, that the skull was not fractured, neither, in their estimation, had any serious damage been done to the brain. The injured man, however, said, "My skull is broken, and it is all up with me." He now also, for the first time, became conscious that he was utterly unable to move in the smallest degree any portion of the left half of his body, and asked these gentlemen the cause of this difficulty. He was assured by them that it was a matter of no significance whatever, but resulted from his having lain on that side in his journey from the shop, and that the side was in consequence "asleep or numbed."

After completing the examination, the edges of the wound in the scalp were drawn together and held in apposition by the interrupted suture. Ordering the free application of tincture of arnica to the wounded head, and bottles of warm water to relieve the condition of the left side (paralysis), they took their departure.

Husband and wife, being very much dissatisfied with both the opinions and treatment of these gentlemen, whom most unfortunate circumstances had forced upon them, soon after called upon me.

Upon my arrival I found an incised wound of the scalp, fully four inches in length, occupying the right parietal region, clumsily drawn together by very coarse silk sutures. The man was perfectly conscious, and complained of great pain in the head. There was marked facial paralysis of the left side, and intimated complete hemiplegia of the whole left side of the body.

Having already seen enough of the case to convince me that grave and serious injury had been sustained by both skull and brain, and that there was, in all probability, a depressed fracture of the skull resulting in compression of the brain, I informed the family concerning my apprehensions, and, at the earnest solicitation of the friends, consented to take charge of the case, promising nothing favorable as to the result. Upon introducing the probe through the gap in the scalp, I found the skull depressed as far as the instrument could be carried on either side of the wound. On account of the responsibility of the treatment of this case, my cousin, Dr. J. S. Eshleman, was called in consultation, upon whose arrival the sutures that held the wound together were cut. Immediately beneath the scalp I found several small fragments of brain-substance. Upon introducing that best of all

probes, the finger, abundant proof was afforded of the diagnosis,—a very extensive depressed fracture, confined to the right parietal bone. I could feel distinctly the rough edges of broken bone, and, running the finger along these, could form some idea of the magnitude of the injury. The surface of depressed bone seemed to be about three inches square, and was in three distinct portions. One of these portions, triangular in shape, and occupying a position near the frontal extremity of the bone, seemed to be completely separated from its connection with the surrounding bone. The size of this fragment was one inch in length and three-fourths of an inch in width at its base. In regard to the other two pieces, although depressed in such a manner as in some places to show the whole thickness of the unbroken skull standing above them, the fact of their complete detachment could not be determined. These two pieces were much larger than the one described as triangular.

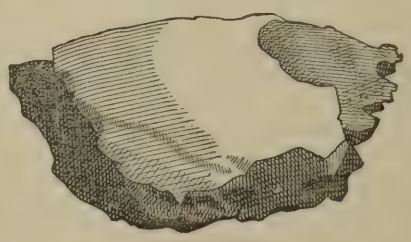
Having now determined the true condition of affairs, it was decided to relieve the injured brain immediately of the great pressure to which it was subjected; and, the patient being anæsthetized, the piece of bone previously spoken of as the triangular one was removed by the ordinary lever belonging to the trephining-case, with some difficulty, although completely detached.

The peculiar manner in which this portion, in common with the others, was driven under and held by the surrounding unbroken skull, rendered its removal very difficult, and made it necessary to enlarge the wound in the scalp one inch. Profuse hemorrhage followed the removal of this portion; and, ice failing to arrest it, bits of lint saturated with Monsel's solution were carefully introduced into the opening, and the bleeding was soon under control. Attention was now directed to the second depressed portion of bone. This was about two inches in length by one inch in width. Its connection with the skull at its occipital end, although not quite severed, was so slight as to make its separation in time a certainty. Owing to its large size, and fearing that the force necessary to effect its detachment from the dura mater and from the skull proper would be followed by a recurrence of exhaustive hemorrhage, it was deemed advisable simply to elevate this larger piece and allow nature to effect its separation. This was with but little effort accomplished.

The third portion, also greatly depressed at its free end, required quite a good measure of force to effect its elevation. The line of fracture extended some distance under the sound scalp in such a manner that its extent could not be determined. It was evident, from the difficulty experienced in its elevation, that its connection must be rather firm, which encouraged the hope that the periosteum remained intact over the greater portion of the line of fracture. The brain was now exposed to view, and could be distinctly seen to rise with every pulsation of its arteries. Both its membranes and substance were somewhat lacerated, as was evinced by the presence of brain-matter outside the broken skull prior to any operative interference. However, close and satisfactory inspection of the brain and its surroundings was precluded by the blackening produced by the application of Monsel's solution. Our patient by this time began to show symptoms of exhaustion, calling for moderate stimulation. The scalp-wound was gently supported by several adhesive strips. We directed the application of cold water to the head, and on the following morning applied ice-bags, which were kept constantly to the head for three weeks. Morphia was quite freely administered for the relief of pain. Complete hemiplegia persisted until the beginning of the second week, when he was able to move the index-finger, and in a few days more could use the arm sufficiently to fan himself. In about three weeks he could, with but little assistance, walk about his room, and in six weeks walked with ease a half-dozen squares. There was no fungus of the brain.

One week after the occurrence of the accident he had marked erysipelas of the left ear, which, under treatment, subsided without involving the wounded head. There was at no time any very marked evidence of cerebral inflammation, although for several days the temperature was elevated and the pulse accelerated. It may be that the profuse hemorrhage in some measure prevented serious inflammatory action. For some days the bowels refused to act, but under purgatives and full enemata they were freely moved, and remained regular.

The second fragment, whose removal was not at the time considered advisable, remained in the position in which it had been placed. The process of separation was carefully watched, and on the 16th day of September following, about eight weeks after the reception of the injury, was perfectly free so far as bony attachments were concerned, but retaining in a slight measure its connection with the dura mater. Dreading hemorrhage, a silver probe was gently insinuated underneath the bone and the dura mater easily peeled from its under surface, and this large fragment, two inches long and one inch



PIECE OF BONE.

wide, readily removed with the dressing-forceps. No bleeding followed the removal. The sudden removal of so large a portion of the skull gave to the man, as he at the time said, the sensation that he had "lost the roof off his head," and for several days it was impossible to induce him to get off his seat, even to go to bed, for fear his brain would "jump out." His wife informs me that he passed three nights in the chair. In the course of a week he became accustomed to the loss of pressure, and walked about as usual. The wound healed slowly, in consequence of the gradual exfoliation of bone, very small por-

tions coming away weekly. The left side has gradually increased in strength, until now at this date (July 1, 1873) it would be impossible for any one unacquainted with the man's history to perceive any difficulty in walking. The opening in the skull has gradually closed, and is now covered over with a cartilaginous substance. Of course a considerable depression remains at the seat of the removal of bone.

The third portion of bone, which was much larger than either of the others and required so much force to effect its elevation, justified the impression formed at the time, that it was not so nearly separated but that it might remain, by becoming firmly united to the adjoining portion of the skull. There has been no tendency to epilepsy.

This man's skull measured fully three-eighths of an inch in thickness. Mr. S. has for some time been employed in the establishment of Messrs. Powers & Weightman, doing full work.

In conclusion, it seems proper to express the opinion that the good result of the case would not have been achieved without the operative interference which has on various occasions been denounced by the gentlemen of the invisible globules.

TRANSLATIONS.

WERNICH ON AN ADDITIONAL EFFECT OF ERGOT, OF IMPORTANCE TO THE OBSTETRICIAN.

Translated from the *Centralblatt für die Medicin. Wissensch.*

BY DR. WM. ASHBRIDGE.

THE results of a large number of experiments, and the frequent mention of a "distended bladder," occurring in the reports of post-mortem examinations, show that the fulness of the bladder found in patients under the influence of ergot is not merely an accidental concomitant of the exhibition of this drug. The explanation of this does not seem far to seek, since the strongly irritant action of the preparations of ergotin upon the sphincter vesicæ is not only a recognized fact, but one that is frequently availed of in therapeutics, in paralysis of the sphincter muscle after typhus, in wetting the bed in children, in the incontinence of the aged, due to simple weakness of the sphincter, in the paralysis of the same muscle in those suffering from paraplegia, etc. But from the circumstance that in animals used for experiments to determine the action of ergotin upon the uterus, in which the bladder, from motives of convenience, had been previously emptied, but yet soon after the administration of the drug was found full of urine, we suspected that in addition to spasm of the sphincter there was still another effect produced by the ergot. This suspicion was strengthened and brought almost to a certainty by the repetition of the same phenomena almost without exception; and, without going into the question whether the increased blood-pressure caused by ergotin is enough to account for the phenomena observed, Wernich feels justified in stating, in opposition to Drasche, that the fulness of the bladder observed after the administration of ergot is due not only to a retention of the normal amount of urine, but also to an increased amount of secretion of that fluid.

Two cases are adduced by Wernich in illustration of his views. The first was a primiparous woman in labor with twins. After the birth of the first, the bladder emptied itself spontaneously, the os uteri was fully dilated, and the head of the second child presented, but, owing to a cessation of labor-pains, ergot was given at intervals of half an hour during the next three hours. The uterus contracted fully, but the head did not advance. At the return of the doctor the bladder was found very full. It was emptied, and almost immediately the child was born.

The second case was also a primiparous woman, in whom there had been a complete cessation of the pains for some hours; and, as the patient and her friends had a great dread of the forceps, recourse was had to ergot, given in the same dose and at the same intervals as in the previously described case. After the second dose the pains came on, gradually increasing, but by the end of the second hour had not caused the head to advance. The bladder was seen to be greatly distended, and by means of the catheter a large amount of clear urine was drawn off, and at once the head advanced, the forceps were applied, and a male child of normal size extracted.

This is scarcely a matter for the obstetrician, as at all events, before any operative interference, the bladder would be examined; but it is worthy the attention of the assistants of the lying-in woman.

It would be advisable for them to use the catheter after a prolonged ineffectual administration of ergot, as it is quite possible that in many of these cases in which want of power has been attributed to the drug, a contrary verdict would have been rendered had the precaution to relieve a distended bladder been observed.

GRAVE ACCIDENTS CAUSED BY THE APPLICATION OF CHLOR-HYDRATE OF ANILINE IN PSORIASIS.

By Dr. Lailler. Translated from *L'Union Médicale*, No. 67, June, 1873,

BY JEAN PAUL BONSIEUR, M.D.

THE resistance of psoriasis to external remedies is well known. A long list of all kinds have been employed without result. I now have to communicate the grievous results of a series of tentative experiments made by myself.

M. Lutz, the learned pharmaceutist of the Hospital of St. Louis, proposed the application of a solution of chlor-hydrate of aniline in these inveterate cases. I knew that there had been accidents among the workers in aniline colors, but they had always been attributed to the presence of arsenious acid; nor was I then acquainted with the very interesting articles by M. Beaugrand on poisoning by aniline; but, being assured of its safety by M. Lutz, who had lived for some months in an atmosphere saturated with the vapors of aniline without inconvenience, I did not hesitate to make the essay.

The first application was made on a man æt. 49, very intelligent, who had suffered for thirty-two years with an inveterate psoriasis, which had resisted all treatment both internal and external. He also had pulmonary emphysema, with asthma. The veins of the thoracic walls were largely dilated,—for which we could discover no cause, after a careful examination of the viscera of this region.

April 6.—At half-past six in the evening, a compress containing about 50 grammes of a solution, one-tenth of which was chlor-hydrate of aniline, was applied to the left arm. In an hour and a half after, vomiting occurred, which was repeated from fifteen to twenty times during the night. No diarrhœa; incontinence of urine,

the desire very urgent, slight smarting; very agitated during the night; cold, and icterode.

On the morning, 7th, the color cyanosed, face violet, and the eruption more distinct. Pulse 116, very small, but regular. Some râles in the chest. Pain very severe in the heels and calves. No cramps. Intelligence intact.

On the 8th the normal color is restored, and no trouble remains except pain in the heels. The patient now suffered from an indigestion, beginning after the use of this drug. On the 10th, at the request of the patient, an application of the drug (1 to 20 solvent) was made to the left knee, in order that the absorption might not interfere with respiration. In two hours cephalalgia, deep sleep, chilliness, labored respiration. No nausea, vomiting, nor trouble in micturition. Urine deeply colored, as in the first application. Cyanosis very pronounced. Voice lost.

The following day he had entirely recovered. Thinking these peculiar phenomena might depend on the idiosyncrasy of this individual, or on extreme susceptibility on account of the chest-complication, we made another essay on a patient who had witnessed the preceding experiment and who volunteered himself as a subject.

This patient, a vigorous old man, æt. 68, well preserved and intelligent, had been troubled with an inveterate psoriasis for twenty years, and had been treated by some of the most eminent surgeons of France.

June 6.—The first application of the drug (1 to 500 solvent) was made to the eruption on the right thigh, without appreciable result. The next day an application of 100 grammes of a solution (1 to 50 solvent) was made to the same place. Four hours after, he all at once lost consciousness, and became violet, as if asphyxiated; yet the respiratory movements were free. At the end of a quarter of an hour he recovered himself, though the cyanosis remained for four or five hours, and this gave place to a decided pallor, with abundant cold sweats. Insomnia during the following night. Urine very red. No fever, no vomiting,—differing from the other. Recovered next day.

In the analysis of the foregoing we deduce the following: that, though the structure of the skin is so decidedly altered, yet its power of absorption is little if any impaired, as we see symptoms of grave poisoning in less than two hours; that chlor-hydrate of aniline in medium doses may be a dangerous poison.

It impairs the oxygenation of the blood. The cyanotic appearance simulates that of subjects under the influence of protoxide of azote.

Another analogy between these two agents is the fugacity of the toxic phenomena.

Some essays have been made by Turnbull in the treatment of chorea by the sulphate of aniline, which have been followed by success. But Drs. Fraser and Daves, of London, and M. Bergeron have been less happy with their cases.

ON THE DIAGNOSTIC SIGNS OF FEBRILE DELIRIUM TREMENS.

Translated from *L'Abeille Médicale* of June 9, 1873,

BY JEAN PAUL BONSIEUR, M.D.

M. MAGNAN made a communication before the Société de Biologie on the diagnostic signs of the benign and grave form of inflammatory delirium tremens, and also to anticipate the grave accidents which accompany acute alcoholism.

The most important symptom is rise of temperature. In grave cases it rises from 38° to 39° (Cent.) on the first day, progressively ascending to 40°, 41°, 42°, and, in the height of extreme agony, will rise to 43°; on the contrary, in the cases terminating in cure, the course of the temperature presents on the first four or five days marked oscillations which show a prompt defervescence; when during the first few days the temperature keeps about 38°, the case is simple and cure certain.

The second sign is the shivering or muscular trembling which pressure on the muscles demonstrates; they are elicited, by percussion or strong pressure, from both the superficial and the deep muscles, and, what is more remarkable, can be produced during the sleep of the patient.

The third sign, less important, is a feebleness and paralysis which often amounts to a paraplegia of the lower extremities. The course of the temperature allows the greatest certainty in the differentiation between delirium tremens from an excess of alcohol, and that of wounded or sick, in whom the temperature is connected with the complications which follow in the course of their affection,—traumatism, pneumonia, erysipelas, etc. In idiopathic inflammatory delirium tremens the course of the temperature is characteristic. The pathological alterations in grave cases are hyperæmia of the gray substance of the cord, with miliary hemorrhages of the same.

The delirium, trembling, agitation, the appearance and heat of the skin, the acceleration of the pulse, afford very little information in this disease; whereas the study of the temperature and of the fibrillous contractions of the muscles affords a great precision both in prognosis and in diagnosis. The above statements are the result of numerous observations made by M. Magnan.

CHANGES IN THE SYMPATHETIC NERVOUS SYSTEM IN CONSTITUTIONAL SYPHILIS.—P. Petrow, of St. Petersburg, describes (*Virchow's Archives*, vol. xvii., March 1, 1873) the changes produced in the sympathetic nerve by syphilis, and arrives at the following conclusions. 1. The general disorder of the organism in syphilis manifests itself plainly in the sympathetic system by changes in the nerve-elements and in the interstitial connective tissue. 2. The nerve-cells undergo (independently of the interstitial changes) pigmentous and colloid degeneration,—more frequently the former. 3. The interstitial tissue partakes of the changes undergone by the same structure in other parts of the body, producing atrophy of the nerve-cells and fibres. 4. The endothelium which surrounds the nerve-cells in like manner partakes in the disease. At first there is increased size, with proliferation, of the cells; and afterwards fatty metamorphosis.—*Allgemeine Medicin. Central-Zeitung*, March 12.

A NEW USE FOR OLD STOCKINGS.—A plan of putting up simple fractures of the leg, which is not, we believe, generally known, and which country surgeons may sometimes find convenient, has lately been practised at University College Hospital. The broken limb is first bandaged with an ordinary roller; this is well coated with the gum and chalk mixture; a stocking is slipped on over this and similarly coated; another stocking is put on over this; and a final layer of gum and chalk over all. Thus, for a case of transverse fracture with little displacement, or of fracture of one bone, two or three stockings and a little starch or plaster of Paris supply a very neat and serviceable splint.—*British Medical Journal*, May, 1873.

CUTANEOUS ANÆSTHESIA (*Centralblatt f. d. Med. Wissensch.*, March 22, 1873).—Dr. Horvath, of Kiev, states that while water, ether, and mercury, at a temperature of —5° Centigrade, give intense pain before they produce cutaneous anæsthesia, alcohol and glycerin at the same temperature produce complete anæsthesia without any uncomfortable feelings.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

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All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

ECLECTIC STRATEGY.

MISERY makes strange bedfellows, says an old adage; but the wild riding of a hobby sometimes brings a man into even stranger and less desirable company than does misery. The Eden-like innocence and gullibility of men when approached through a violent and quixotic belief is a remarkable feature of human nature. Of all strange illustrations of these truisms the strangest is the sight recently exhibited of the old University of Edinburgh—the castellated home of conservatism, the royal mansion of learning, apparently inaccessible in its pride of an ancient race—sending out to the Far West, through the acts of its leading medical professor, not merely greetings, but words of cheer and encouragement, of praise and endorsement, sending them out not to a new school honestly striving for the spread of true science, but to an institution without repute among the regular profession,—one to bear whose insignia is to become a professional outcast. We do not enter into any discussion with the so-called "eclectics;" what they are and what they believe are as well known to our readers as to us; but certainly their name is, at least in this city, too closely associated with diploma-selling and other vile practices for them to be reckoned even with respectable homœopaths. Here, at least, eclecticism practically shelters men who are unable or unwilling to take an honest place and an honorable position in the regular profession, but resort to all sorts of methods to make money.

It is the sheerest folly for any body of men to claim to be a medical sect because they do not believe in the use of mercury, antimony, or arsenic. The regular profession enforces no therapeutic accord in its ranks. Any man is at liberty to use or eschew any remedy or set of remedies, according as his fancy dictates.

Professor Bennett is himself a striking proof of this. If it were otherwise, the profession would be broken up into almost as many cliques or divisions as there are drugs in the Pharmacopœia. The cry indulged in by the eclectics against these remedies is simply a battle-cry for plunder,—at least with many of them. It is to attract the multitude, to gain their confidence by agreeing with their prejudices, and thereby to get access to their pockets. In the West, eclecticism may have in its ranks honorable men. If this be so, we call upon them to come out from the others, and we say to them,—Whether you use this drug or that drug, so long as you yourselves allow individual freedom of opinion, so long as you yourselves are tolerant, so long will the regular profession fraternize with you. After all, however, we fear that in the West, as in the East, eclecticism means professional vagabondage; that its followers are the Bedouins, the Ishmaelites, of medicine.

It is into the hands of these gentry that Professor Bennett has fallen. Moved, probably, by letters of congratulation flattering to his pride of discovery and his intensity of belief, he has written the letter which we quote below from an editorial in *The Chicago Medical Times* of July, 1873, where it is headed "J. HUGHES BENNETT STILL IN THE ADVANCE:"

"DEAR SIR,—Your letter reached me here this morning, and I may say at once that I have not the slightest objection to the republication of my report of the Edinburgh Committee's researches on the action of mercury on the liver. I entirely agree with you as to the inutility or injurious character of mercury. As to antimony, I long supposed it served to dissolve the excess of fibrin in the blood, but find I do just as well without it. The influence of arsenic is very doubtful. I *never give it.* Indeed, it may be questioned how any chemical element which forms no part of the animal body can be of the slightest service in curing or relieving its morbid conditions.

"I was especially grieved to learn of the destruction of your college in the great fire of Chicago, but do not doubt that the well-known energy so characteristic of your countrymen will soon replace it on a secure and better footing. I shall be happy, so far as I am able, to contribute to its library a copy of all my works and separate published papers. * * *

"Yours very faithfully,

"J. HUGHES BENNETT.

"VICHY, FRANCE, May 23, 1873."

Because we respect Professor Bennett as an earnest, intelligent, original—although sometimes over-enthusiastic and illogical—student, because we honor the name of the institution which he represents, we are sorry that he has been so entrapped; though we do not wonder at it.

IN the present connection it seems fitting to say a few words about the celebrated researches of Professor Bennett in regard to the action of mercury upon the liver. On behalf of experimental medicine, we want to deny that these researches warrant the deductions which have been drawn from them, and which have not convinced the profession of their truth, but have brought experimental medicine into discredit with clinicians.

In the first place, it must always be borne in mind that there is a limit to be observed in reasoning from experiments.

No experiment is capable of overthrowing a well-known clinical fact. Thus, to quote examples, no experiment on animals could prove that opium is not a soporific, or elaterium a purgative, to man. We hold that every man can for himself on himself prove that calomel will produce an increase of bile in the passages, just as readily as he can that morphia will put him to sleep, and therefore deny that any experiments upon animals can prove the contrary.

In the second place, the effects of disturbing influences upon experimental results must always be borne in mind in reasoning from them. It has been stated by German investigators, and apparently proven, that mercury acts very differently upon dogs with biliary fistulæ than upon uninjured canines. When it is borne in mind that some believe that the calomel is absorbed through the agency of the bile, the significance of this fact is apparent.

Lastly, experiments always need repetition before their results can be accepted as experimental facts. In regard to Professor Bennett's experiments upon mercury, undue haste was, we think, generally shown in accepting them without this repetition, and it now seems most probable that their results were incorrect. Certainly, at the meeting of the *Gesellschaft der Aerzte* of the 28th of March, 1873, a paper was read by Professor Stricker, containing an account of some experiments he had made in conjunction with Dr. Rohrig on the circumstances influencing the secretion of bile, in which he asserted that the old methods of experiment were faulty, and suggested a new plan. He stated that on employing the latter method he had *found that calomel does increase the flow of bile in the dog.*

For these various reasons, we think that it is simply absurd to claim that it has been proved by the researches of Professor Bennett that mercury does not act on the liver.

THE lapse of centuries has not sufficed to surround the names of Cornelius Agrippa and Philippus Paracelsus with the customary halo of antiquity, nor have we yet learned to regard them as other than ignorant and impudent charlatans; but their fumigations, astrological tables, and "sympathetic powders" command a new respect, as at least harmless remedies, when contrasted with some of the blunders made by practitioners of medicine in this era of enlightenment.

An unfortunate lady, twenty-five years of age, being about to be married, and never having menstruated, consulted a physician. After making an examination *per vaginam*, he informed her that she had occlusion of that canal, and proceeded to make an incision through what he called an imperforate hymen. The resulting hemorrhage he declared to be due to the retained catameniæ. Painful micturition, dribbling of urine, and finally complete non-retention, followed this operation. After suffering for some time, she applied to another physician for relief. He attributed her difficulty to a condition which he designated as "closure of the urethra," and operated in his turn by dividing the anterior portion of the urethro-vaginal wall. After another long period of pain and misery, she fell into the hands of an educated practitioner, who found that her original condition was due to a congenital absence of the uterus, that the first operation had been through the wall of the bladder, leaving a vesico-vaginal fistula, and that the second had connected this fistula with the orifice of the urethra, laying open that canal along its entire length.

After having life made burdensome for six long years, she is at last on the road to recovery through skilful and judicious surgical treatment.

Our cotemporary who publishes this case, discreetly, and perhaps wisely, gives only the initials of the first two medical attendants; but it seems a shame that such monstrous and inexcusable ignorance cannot be exposed, so that it may at least be avoided.

A FEW weeks since, some laborers near the village of Dervock, County Antrim, Ireland, disinterred from a peat bog the remains of a woman in a curious state of preservation. The integument

was perfect, and was thoroughly tanned, but the bones had lost their solidity and were soft and compressible. The face, ears, tongue, and pharynx were undecomposed, as were the tendons, especially about the joints.

The body occupied a crouching position, about ten feet below the surface, and was five feet and one inch in length.

We have long been familiar with the preservative action of peat, which explains the condition of the soft parts in this case; but the disintegration of the osseous system is not so easily understood. It would seem possible that the presence of iron pyrites or some other oxidizable material might have furnished acid enough to dissolve the mineral constituents of the bones and leave the animal portion almost unaffected, as was found to be the case.

ON June 26 a formal presentation was made to Lady Paget of a beautiful portrait of Sir James Paget, painted in oil by Millais. It had been executed at the request of a large number of pupils, friends, and admirers, and was presented in the great hall of St. Bartholomew's Hospital, by Professor Humphrey, of Cambridge. In receiving the testimonial, Sir James referred with justifiable pride to the fact that there were in the audience three of his old pupils who are at the present time professors in the three most illustrious universities in Great Britain. In behalf of Lady Paget, he begged the governors of the hospital to accept the portrait, which will be hung with those of Abernethy, Earle, Lawrence, and Burrows.

WE are glad to learn that Dr. Sharpey, who has suffered from double cataract for fifteen years, has at last been operated upon successfully, is enjoying tolerably good vision, and has made his appearance again at University College, where it is to be hoped he will resume his valuable labors.

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times:

AS you have incorporated into your editorial upon cholera, of July 19, a lengthy extract from the report made by Dr. F. A. Ramsey to the mayor of Knoxville, relative to the outbreak of that disease in Greeneville, Tennessee, and as the contents of that extract are unreliable and untrue, I hope you will give the writer, who was a resident of Greeneville for twenty-four years previous to 1872, an opportunity to refute the foul aspersion cast upon the people of his native place, and to show that the cholera data deduced by Dr. Ramsey are more imaginary than real, and offer nothing as to the solution of the problem of the local causes bringing about so terrible an outbreak in a small town. When I read the above-mentioned extract in your editorial, I was perfectly thunder-struck that a man would so outrageously misstate facts and unhesitatingly throw out to the public such a malicious slander upon the good name and decency of the residents of a little village, and that, too, in a nonchalant, facetious way, which seemed to imply that the doctor delighted to ventilate the moral, ethical, and hygienic condition of a scourged people and to bring the reprobation of neighboring towns upon them.

Dr. Ramsey has never been a resident of Greeneville, and I have no knowledge of his having visited the place throughout the past eighteen or twenty years; and where he gathered material to make his report I cannot say. If it had come from Barnum, I would regard it as a huge joke; but emanating from a former editor of a Memphis medical journal, it assumes a more serious aspect.

Says Dr. Ramsey to the astonished mayor of Knoxville, relative to Greeneville, "More than a quarter of a century ago an *immense pit* [italics my own] was dug in the very centre of the town, and a cloaca erected over it with a capacity sufficient for the accommodation of the *entire community* during all these years." Strange and infatuated people of Greeneville, that you would all flock to a public privy behind a court-house, twenty feet long and ten feet wide, with only three apartments, making a pilgrimage several times a day to this unhallowed Mecca, according to Dr. Ramsey's statement, instead of enjoying the *priv*-acy of your own backyards! The fact is, Mr. Editor, for many years there has existed a public privy behind the court-house, for the accommodation of *country-people* coming to town to attend to business or to remain during the sitting of the circuit or superior court. The pit of aforesaid privy is about fifteen or twenty feet long, fifteen feet deep, and ten feet wide, and was dug *three years ago,—the old one having been filled up at that time.* This is the *immense* pit that haunted Dr. Ramsey's imagination, and which was for the accommodation of the "whole community." Verily, so overcome (!) am I at this point, the only further comment I can make is, Selah! Some Muse ought to strike the chords of his "heaven-resounding harp," and sing in melodious numbers of this *pit*-iful story, to commemorate a wonderful and lofty flight of the imagination! The energetic citizen of whom Dr. Ramsey speaks as a lineal descendant of Abraham did no more in emptying the contents of this "immense" pit upon his vineyard than many wise men have done and many still do; that art, according to my observation, is practised here in classic New England, where everything is supposed to be done upon scientific principles. Then follow more "vain imaginings:"

"It was the eastern side or slope of the hill on which

the deposit was made; and of course the wash was into and through the town. The heavy wash of this rain carried all the surface-soil from the hill; and, as the water *covered an area equal to three-fourths of the corporate extent of the town*, the débris from the pit, which it held, fairly divided, if not dissolved, was *distributed to just so much of the surface of the ground*" (italics my own). This proposition hasn't a living fact to support it, unless water is not subject to the laws of gravitation, and can run up hill as well as down. Water coming from that eastern slope *can only run one way after it gets to the bottom of the hill, and that through an open drain on the right side of Depot Street. This drain, as it nears Main Street, runs obliquely east, then southeast into a creek.* Therefore, as to this *débris* being distributed to three-fourths of the corporate extent of the town, which corporate extent is a mile in length by three-quarters in width, there is not a shadow of truth; and the doctor has been misled by somebody as ignorant of the topography of Greeneville as he is of the essential element of cholera itself. Why, sir, it would take a flood as big as Noah's was at the end of a fortnight to cover three-fourths of the area of the corporate limits of Greeneville, which abounds in hills and valleys throughout its whole extent.

One more flight of the imagination which we wish to follow, and then our criticism is ended. Here comes the "gem,"—a precious stone that never sparkled in any man's intellect during my residence in Greeneville, but perhaps during my absence of a year it has sprouted out, and the doctor has discovered it,—*i.e.*, that Greeneville people have found out the grape-vine liveth only through copious deposits of *human excrement* at the "root of each main stem." We quote verbatim et literatim: "But this is not all: the *pile* is yet incomplete! The town of Greeneville is a town of gardens, each garden-owner indulging an emulation as to who would have the best grapes. . . . *All the inhabitants of the town believed* that the *fæcal* deposit made by *men, women,* and *children* is of all things the best to give vigor to the grape-vine, fulness to the grape, and luscious delicateness to the flavor and mellowness to the odor of the juice of the fruit. Every cloaca in town," continues the doctor, "surrendered its contents, and at the root of each main stem was buried, in wet earth, a pile of human excrement." Here, again, I'm so astounded at the doctor's flattering compliments to the "men, women, and children" of Greeneville, that I'm compelled to pause and reflect upon the *frailty* of humanity. This proposition I believe to be not only an insult to every "man, woman, and child" in Greeneville, but untrue in every particular.

For twenty years *previous* to 1872 I never knew or heard of any citizen of the town making any such application to his grape-vines; nor do I believe that that custom has been in vogue *since* 1872. As for the "lusciousness, delicateness, flavor, and mellowness, etc., of the fruit," the doctor intermixes adjectives so with bad odors as to be really *fæces*-tious and funny. "Every cloaca in town surrendered its contents," *i.e.*, in Dr. Ramsey's *imagination, not in* Greeneville; and he couldn't convict the citizens of the place of such misdemeanor, if he even had Mark Twain's Virginia City jury to sit on the case. To come to plain truth, during my long residence in Greeneville I never in all my life saw or heard of a citizen emptying his privy-vaults as manure upon anything; and any man saying to the contrary is talking about something of which he is profoundly ignorant. How kind of a philanthropist to cast the foulest of aspersions upon the people of a little remote village, and, regardless of all truth and fairness, give forth such an opinion of "men, women, and children" as to lead the editor of this journal to say, "Greeneville was punished for the most reckless disregard of the first principles of sanitary science, if not of *common decency*."

Now, Mr. Editor, if Dr. Ramsey had with a ten-pound Parrott gun mounted that "eastern slope," and loaded it with human *excrement*, firing it off every ten minutes during the day, he couldn't more literally have befouled the town than he has in the extract you quote in your editorial; and if he should walk the streets of Greeneville and strike every "man, woman, and child" in the face with a handful of the contents of that "immense pit," (?) he couldn't insult them worse than he has by flinging his *fæcal* report to the general public. In considering the *unreliability* of the facts he put forth in his report, I conclude by saying that it invalidates any of his deductions as to the cause of cholera in Greeneville; and I hope to prevent any such report being placed upon the statistical tables of cholera; and, if space permitted, I could show that the cholera extended right in the *opposite direction* from the *excrementitious-washed* part of the town.

Very respectfully,
JAMES D. McGAUGHEY, M.D.

WALLINGFORD, CONN., July 21, 1873.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR:—One swallow doesn't make a summer; but the following result or coincidence astonished me, and seems worthy of record. I was called to see Mrs. S., aged 35, in labor with her ninth child. Very early in her seventh and eighth labors the womb had entirely given out, so that the child had to be delivered with forceps, although all the mother's parts were roomy and well relaxed. After the births severe flooding occurred.

At the time of my arrival, 12 midnight, there were some slight pains. At 3 A.M. the bag of waters broke; the os being soft, relaxed, and about an inch and a half in diameter. The pains shortly died entirely away, and at 4.55 A.M. the os was exactly as it had been at 3 A.M. I now exhibited four grains of quinine, and at 5.6, six grains more, all in solution. Shortly after the last dose she began to have cutting, grinding pains of some severity; but, having made up my mind that, as on the previous occasions, delivery with the forceps would be required, I was sitting in the next room, when at 6 A.M.

I was startled by the cry, "Come, quick! it's coming!" And, sure enough, on entering the room I found the head protruding from the vulva. It seems that there had been two sudden, long, hard, expulsive pains, which had completed the labor. The womb continued to contract; a female child of good size was soon born. The womb immediately became a "cannon-ball;" no blood was lost, and all went "merry as a marriage bell."

Yours,

OBSTETRICIAN.

PHILADELPHIA, July 26, 1873.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

AT a conversational meeting held April 23, 1873, at 8 o'clock P.M.,

Dr. W. B. ATKINSON, PRESIDENT, in the chair,

Dr. H. LEAMAN presented a pathological specimen of an *appendix cæci*, showing gangrene to the extent of an inch in its lower portion, in which there was a minute perforation. The appendix was of the usual length, presenting a patulous orifice on the cæcal surface, and lodged in its cul-de-sac a date-seed, which had separated into two parts. The gangrene and perforation were close to the seed, and between the seed and the inlet of the appendix.

The patient, a boy 14 years of age, was taken sick April 9, 1873, with sickness of the stomach, and vomited his dinner. When the doctor saw him, the next day, there was a resonant tumor in the right iliac fossa, with general abdominal tenderness. The constitutional symptoms were slight, and the patient anæmic. He died Sunday, April 13, 1873.

The post-mortem, sixteen hours after, showed, in addition to the above, a film of pus over the general peritoneal surface, with an accumulation of pus around the cæcum.

Dr. A. D. HALL said that a few years ago he had gone to the trouble of looking up these cases, and had accumulated fifty-eight or fifty-nine similar to the one just mentioned.

Dr. R. BURNS remarked that he was reminded of a somewhat similar case in his practice in 1851. The subject was a girl about 7 years of age. In the fall of that year she had dysentery, with much pain and great emaciation, which continued several weeks and resisted every means used for her relief. Acute enteritis was evidently manifest, which resulted in death.

On the 30th of November, 1851, a post-mortem examination was made, when a penetrating ulcer was discovered at the ileo-cæcal valve, in which was found a large grape-seed, which doubtless was the chief cause of the child's suffering and death.

Dr. BURNS said he believed many children perished by such causes, when their cases seemed to be mysterious and unaccountable.

Dr. J. S. ESHLEMAN referred to a case of inflammation of the cæcum, occurring in the person of his brother-in-law. Two years before his death he swallowed a piece of oyster-shell. During those two years he had occasional suffering and trouble. He died from an inflammation which lasted forty-eight hours. The piece of oyster-shell was removed from the ileo-cæcal valve, and the bowel was found thickened to the extent of three-fourths of an inch, but perforation had finally taken place. The doctor spoke of the propriety of removing the foreign substance in such cases.

Dr. H. Y. EVANS stated that he had seen cases of ulceration and dilatation of the appendix, yet in none of them had this abnormal condition been the cause of death. He had within a few days been present at a post-mortem in which the appendix was quite thin from fæcal distention, and he had no doubt that inflammation of the bowels occasionally has its origin in this vermicular process.

Dr. F. J. BUCK remarked that he had been using, for several years, at the suggestion of Dr. A. Nebinger, the sulphite of soda in the treatment of erysipelas. He was thoroughly impressed with the value of this agent, used internally and externally, both in the form of the sulphite and bisulphite.

Dr. L. TURNBULL had employed the sulphite and bisulphite of soda in "purpura." He was aware that it was a disease of debility, and in the treatment he had resorted to the use of good diet, tonics, such as the mineral acids, quinine, and iron, with acidulous drinks. Yet all these means failed to relieve his patients of the swelling and sanguineous patches of various sizes from the ankle to the knee. He then used these preparations of soda, administering teaspoonful doses, diluted in water, every three hours, and found the most happy results to follow. The pain and swelling disappeared, and the skin assumed its natural color, etc. He had used this remedy with perfect success in several cases.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JUNE 26, 1873.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. O. H. ALLIS presented a specimen of *popliteal aneurism*, which is the subject of an original communication in No. 92 of the *Medical Times*.

Dr. JAMES TYSON exhibited a specimen of *occlusion of the common bile-duct*, with apparent disappearance of the gall-bladder proper, its contents mingled with blood being contained in a cavity in the substance of the liver. (See a clinical lecture in No. 88, July 5, of the *Medical Times*, where the post-mortem appearances are also described.)

Dr. J. EWING MEARS presented portions taken from a specimen of *tumor of the right ovary* removed by Dr. Washington L. Atlee from a patient æt. 32. The growth from which the portions exhibited were taken was chiefly interesting owing to the fact that in it were presented two morbid structures, which were connected, though not related,—one of a benign, the other of a malignant character. The former consisted of a cyst containing a large quantity of fluid, whilst the latter was a large solid mass, projecting into, and, as it were, forming part of the wall of, the cyst; the greater portion of the mass, however, was exterior to the cyst.

The wall of the cyst was very dense, requiring some force to penetrate it with the trocar. The lining membrane was smooth, and did not differ in any respect from that of simple unilocular cysts. The fluid by microscopic examination presented the usual characters of the fluid of simple ovarian cysts.

On section and examination of the solid mass, it was found to be malignant in character, of the alveolar or colloid variety of cancer.

In remarking upon this specimen, Dr. MEARS alluded to the difficulties which presented themselves in determining, prior to operation, the nature of the morbid growth; more especially in reference to its benign or malignant character. The solid portion of the tumor

was firmly lodged in the pelvic cavity, and was in very intimate relation with the uterus, rendering it quite difficult to decide that it was not in some way connected with that organ.

Palpation and percussion determined very positively that the abdominal cavity was occupied by a cyst containing fluid. Tapping was performed, and a specimen of the fluid was submitted to careful examination. It did not vary from that usually found in simple ovarian cysts, either in its microscopical or chemical characters. The microscope did not show in the fluid any cell-structures which would have determined its origin from a cancerous growth. On a previous occasion Dr. MEARS had been able to diagnosticate the malignant nature of the tumor of the ovary by microscopic examination of the fluid contents removed by tapping, as was proved by post-mortem examination.

In this case, as clearly seen after the operation, the distinct separation between the two portions of the tumor prevented the discovery of its nature by examination of the fluid.

A diagnosis of multilocular tumor of the ovary (non-malignant) was, therefore, very naturally made. Another interesting question was suggested in discussing this specimen, relating to the priority of the morbid growths: whether, in this case, the ovary was primarily occupied by the cystic growth and subsequently became the seat of cancer, or the reverse. The history of the case is that of rapid development, covering a period of about nine months. The appearance of the tumor seems to indicate that the cancerous portion was developed subsequent to the cystic growth.

REVIEWS AND BOOK NOTICES.

SKIN DISEASES: THEIR DESCRIPTION, PATHOLOGY, DIAGNOSIS, AND TREATMENT. By TILBURY FOX, M.D. Lond. Second American, from the Third London Edition, re-written and enlarged, with a Cutaneous Pharmacopœia, a Glossarial Index, and sixty-seven additional Illustrations. New York, William Wood & Co., 1873.

The third edition of Dr. Fox's work upon diseases of the skin appeared in London a few months ago, and already, through the zeal of Dr. Henry, of New York, we are so fortunate as to possess another American edition, which reflects credit alike upon editor and publisher. The book is very well known, and since the publication of the first American edition has been extensively employed in our universities as a student's manual; but with the present edition its popularity must greatly increase, many marked improvements and changes being everywhere visible. The volume has been enlarged, and in parts so altered that the original is scarcely recognizable amid the quantity of new material to be found upon every page. We notice many of the chapters entirely re-written as well as re-arranged. Large numbers of illustrations have been introduced, borrowed almost exclusively from the publications of the German investigators, to whom modern dermatology is so much indebted for awakening an interest in pathological research. It must be gratifying to students of all nationalities to observe the friendly and generous spirit with which Dr. Fox has made use of and brought forward the studies which have of late appeared in both this and the Old World. This liberal kindly feeling for the true student, of whatsoever country he may be, is manifest throughout the entire work, and shows plainly the broad views which our author has adopted.

The present edition is nearly double the size of the former, and contains much new and original matter. Pathology is accorded a prominent position in the consideration of each disease, the author not only giving his own views, but also those of other writers. The description of the diseases is given in an easy colloquial style, without attempt at routine or formality; more condensation, perhaps, would have rendered the volume more acceptable as a scientific work. We observe also that many of the chapters have evidently been written in great haste; this is particularly noticeable towards the end, where certain diseases scarcely receive sufficient space. The book, however, taken as a whole, is an eminently good one, and well deserves the high position which it holds. We cheerfully recommend it as being the best work upon diseases of the skin which Great Britain has yet produced, and we wish it the success which it merits.

ACCOMMODATION AND REFRACTION. A Review of Dr. Fenner's Pamphlet. By DUDLEY P. REYNOLDS, M.D. Reprinted from the *American Practitioner* for July, 1873.

This pamphlet is another example of misspent time and labor. Its intention is to point out some glaring errors in a treatise on "Accommodation and Refraction," by Dr. Fenner; and in following out this idea the critic has held up to ridicule some slight misstatements which do not deserve the extended notice he has given them.

It is to be hoped that in the future a similar amount of energy will be displayed in a more worthy cause.

GLEANINGS FROM OUR EXCHANGES.

TRAUMATIC RUPTURE OF THE TYMPANIC MEMBRANE (*British Medical Journal*, June 7, 1873).—Mr. W. B. Dalby reported ten cases of this accident. In six of them the wound healed, and, when no inflammation in the tympanic cavity followed, a few days sufficed for the perforation to close. In the other four cases the wound did not heal at all. When suppuration had been once established in the tympanic cavity the treatment pursued was the same as in cases where the perforation had been the result of disease, and consisted chiefly in the use of astringents. No treatment was adopted when the injury was not followed by inflammation of the tympanum. It was found that the injury to the nervous structure of the ear behind the tympanum caused the loss of hearing, rather than the injury to the membrane, and that the greatest loss of hearing followed those accidents in which the greatest force was used in producing the rupture.

DEATH UNDER METHYLENE ETHER.—On Saturday last a patient on whom Mr. Lawson Tait was just about to perform ovariotomy, at the Birmingham Hospital for Women, died suddenly after the administration of five drachms of methylene ether. The anæsthetic was given through a single fold of a towel by the resident medical officer, and nothing noteworthy was observed during its administration. The pulse suddenly stopped, the pupils became dilated, and the respiration subsequently ceased. All efforts at restoration were fruitless. Post-mortem examination did not reveal the cause of death, the heart and all the other organs, except the ovary, being quite healthy. During life a halenic murmur at the base had been detected.—*London Lancet.*

NATURE OF MUMPS.—In a note on the above, read to the Academy of Sciences by Claude Bernard, the author, Dr. Bouchut, states that parotitis is simply a salivary retention due to catarrhal inflammation of the excreting canal of the parotid.—*London Lancet.*

PARALYSIS OF THE RADIAL NERVE CONSEQUENT ON EXPOSURE TO COLD.—At a recent meeting of the Société de Biologie, at Paris, M. Vulpian brought forward an interesting case of paralysis of the extensors of the forearm. In the month of January last, a man, aged 43 years, slept in a very cold and damp room, and awoke with a sense of chill, numbness, and tingling in the right hand and forearm, attended with complete loss of power over the extensors of the wrist and fingers. He was perfectly sober, and had lain on his right side, with the right arm outside the bed, naked and pronated, and with his head resting on the external part of the arm. The muscles reacted energetically to direct faradization, which was employed for six weeks without any benefit. It was then perceived that direct electrization of the *radial nerve* had no effect on the extensors of the hand and fingers, and when the electric treatment was applied directly to the nerve the patient speedily recovered. M. Vulpian thinks it probable that the paralysis in this case was due to the action of cold on the points where the motor-nerve fibres enter into an intimate connection with the primitive fasciculi of the extensor muscles of the hand and fingers. If this be so, the case would be somewhat analogous to what obtains in animals deeply curarized. In them, as we know from C. Bernard's experiments, the motor nerves preserve their excitability, and the muscles their contractility, and yet electrization of the motor nerves produces no contraction in the muscles supplied by these nerves.—*La Tribune Médicale*, 27th April, 1873.

NIGHT-SWEATS OF PHTHISIS.—In some valuable notes of practice in the Bellevue Hospital, New York, published in the *Medical Record* of that city, we find that for the relief of the above exceedingly troublesome symptom some patients are taking $\frac{1}{60}$ of a grain of sulphate of atropia in solution *ter in die;* some are taking $\frac{1}{100}$ of a grain at bedtime, and the success of this mode of treatment has already been sufficient to entitle it to further trial. Another plan of treating these night-sweats is also practised. It consists in taking the patient out of bed, if found sweating profusely in the night, sponging him with water as hot as he can comfortably bear, and, after being wiped dry and having his flannels replaced, putting him back to bed. It is stated that sometimes a single sponging will arrest the sweating for two or three days. In the French hospitals, according to a recently published thesis of M. Finot (*Rev. des Sciences Méd.*), agaric, tincture of aconite, phosphate of lime, etc., are employed for the same purpose. The reporter in the latter periodical, M. Rabuteau, speaks highly of the efficacy of phosphate of lime.

GENERAL USES OF DIRECT AND INDUCED CURRENTS (*Irish Hospital Gazette*, July 1, 1873).—Walter G. Smith, M.D., in a lecture on the Clinical Uses of Electricity, thus tabulates the therapeutic distinctions between the two forms of current:

DIRECT.	INDUCED.
To excite the nerves of special sense.	To stimulate the cutaneous nerves.
To reduce muscular spasm directly.	To antagonize muscular spasm by exciting the opposing muscles.
To produce chemical and thermal changes, *e.g.*, coagulation of blood, electrolysis, cautery.	
To stimulate muscles in certain cases.	To stimulate muscles in the majority of cases, and generally to obtain energetic peripheral excitation.
To relieve neuralgic conditions.	
To affect the brain and spinal cord directly, especially the latter.	

AMYKOSASEPTIN: AN ANTISEPTIC.—Amykosaseptin, or amycetoseptin, is an antiseptic consisting of a solution of borax combined with decoction of cloves. The author of a paper in *Allg. Med. Cent. Zeit.*, No. 46, 1873, thus describes its action: 1. Boric acid prevents bacteria from penetrating into the tissues, and thus prevents rot. 2. It destroys bacteria which may already exist in the tissues, and thus arrests rot. 3. It speedily kills true infusoria. 4. It is often a deadly poison for articulated animals and their larvæ. 5. It does not prevent the development of mildew. 6. The decoction of cloves only possesses in a limited degree the property of preventing the development of mildew, but it certainly delays the process and renders it difficult.—*London Lancet.*

ANTI-NEURALGIC SNUFF.—The *Rivista Clinica di Bologna* mentions an anti-neuralgic snuff prescribed with success in cases of facial neuralgia, by Dr. Scriffignano. The base of the snuff is quinine, and its composition as follows: Citrate of quinine, ten grains, very strong; exciting snuff (tobacco), fifteen grains. The medicament is said to act almost directly on the diseased nerve through the ethmoidal thread of the nasal ramus of Willis's ophthalmic, a branch of the fifth pair.—*London Lancet.*

CYSTOTOMY FOR SPASM OF THE NECK OF THE BLADDER.—Dr. Francesco Parona (Novara) reports in full in the *Rivista Clinica di Bologna* (May 10, 1873) two cases of spasm of the neck of the bladder cured by cystotomy, with the following conclusions: 1. The most certain means to cure this affection is incision of the neck of the bladder. 2. The operation of cystotomy is preferable to intra-urethral section.—*The Clinic.*

MISCELLANY.

A NEW poison has lately been discovered, called *inœa*, which is said to be more subtle than digitaline. It is obtained, by pressure, from the seeds of *Strophanthus hispidus*, an apocynaceous plant, found in Gaboon; and from experiments made with samples of it, taken from arrows, upon which the natives place it, it appears to act more powerfully than even digitaline, and quickly paralyzes the heart. Three milligrammes kill a frog, a sparrow, or a dog; though the resistance of certain animals varies. A snail, for instance, requires five milligrammes; a mouse has withstood three milligrammes of the extract (obtained by macerating the seeds in alcohol), while this latter dose kills a dog nearly a thousand times heavier than the mouse. The heart comes to a complete stand-still after a few irregular efforts.—*New York Medical Review.*

PROGRESS IN MICHIGAN.—Miss Dr. Frances A. Rutherford is Fourth Vice-President of the Michigan State Medical Society. She attended the recent session of the State Medical Society at Saginaw City. It is believed that this is the first instance of a woman's holding such a position in such a society in this country. Miss Rutherford is a graduate of a Philadelphia Medical College.—*Medical and Surgical Reporter.*

FROM Lord Bacon downwards, statesmen have frequently sought in scientific research a solace from the cares of office. M. Thiers is the last case in point. Deep in the Darwinian hypothesis, he is engaged on a work respecting the origin of the human species.—*London Lancet.*

Mr. F. A. Burr, editor of the Pottsville *Daily Standard*, writes as follows concerning the notorious Wharton trials:

"Reviving a Dead Issue.

"The circumstances preceding and attending the trials of Mrs. Wharton, in Annapolis, Maryland, for the alleged poisoning of General Ketchum and an attempt on the life of Eugene Van Ness, of Baltimore, are of such a nature as to lead one to suppose that, after the result of the trials, the whole matter would be allowed to rest in peaceful and proper oblivion. As the trials, the first at least, have attained the dignity of *causes célèbres*, we might naturally expect to find them made the fruitful source of parallels and precedents, by lawyers engaged in kindred cases; but that the medical fraternity, especially the experts who appeared for the prosecution, should continue to agitate the equivocal part there played by learned doctors, is singular, and not at all to their credit or reputation.

"In the beginning of the persecution levelled by the Baltimore college against Mrs. Wharton, there was very evidently more a feeling of professional pique, inciting the three leading medical witnesses for the State, than a desire for equal and exact justice. The most remarkable hesitation and shifting marked the determinations of the wise men who were experimenting on the body of General Ketchum; we say experimenting, for there did not appear a single evidence that intelligence had any part in the post-mortem examination. The symptoms which marked his illness and the circumstances attending his death were neglected, and a regular hunt after one hypothetical poison and another took place, the settlement being finally made on tartar emetic. Professor Aiken, the ancient chemist who conducted the first analysis, having arrived at a certain conclusion, whether rightfully or erroneously matters not, it seems as though his colleagues in the faculty of the medical college felt bound to endorse him, and by pen and voice, in court and out of court, by means of pamphlets, through the public press and by private channels, they strove to at once prejudice the public and shape even the verdict the jury was to render. At the time of the trial of Mrs. Wharton, being then in the service of the New York *Herald*, we made several direct and damaging charges against Drs. Chew and Williams, associated with Professor Aiken for the prosecution, which neither they nor their friends have had the temerity to deny, concerning this illegal and unprofessional conduct of everything connected with the autopsy, charges that, being acknowledged as true, would invalidate in law the most correct deductions of science and exclude them from evidence. In the immediate vicinity of Baltimore it is well understood that the trials, which have reduced Mrs. Wharton from comparative affluence almost to penury, were incited by the physicians, kept alive through their endeavors, and only failed to stamp her as a modern Borgia through the falsity of the assumptions whereon their assertions were founded.

"The jury in the second trial disagreed; and the State, seeing the impossibility to convict on the character of the evidence at its command, entered a *nolle prosequi*, and the proceedings, as far as the law is concerned, ended. But the faculty of the college are not yet satisfied; the erudition of these sapient professors is on trial at the greater bar of public opinion; and, as they could not hang the woman to save themselves, they keep lugging the case forward, through the medical journals, with elaborate arguments and specious pleas, challenging the verdict of the jury and imputing all sorts of motives to the witnesses, expert especially, for the defence. Neither in law nor in reason is this just. What private quarrels the opposing doctors have are more properly ventilated in private, and should be discussed in the lecture-room rather than be made immortal by being printed. What right attaches to Dr. Chew or P. C. Williams, M.D., or any other man, to declare Mrs. Wharton guilty? An expression of a belief in her guilt is within the province and privilege of every one; but we think that defeated spite is exceeding the bounds of moderation and justice when it reviews, *ex parte*, the antecedents of the trials and determines upon verdicts which intelligent juries, after hearing both sides, refused to render. Let the matter rest. The representatives of the Baltimore College faculty came off with anything but flying colors, and they should be content that the overthrow of their Castle of Knowledge has not been so complete as to leave no stone upon another."

The Indian Medical Service has sustained a severe loss by the death of an indefatigable and conscientious surgeon. Dr. Colles, who was a Fellow of the Royal College of Surgeons of Ireland, and Doctor of Medicine of St. Andrews University, died on February 7, at Dinapore. He had been acting in the room of Dr. S. B. Partridge, as professor of descriptive anatomy in the Calcutta Medical College, and, with characteristic enthusiasm, had exerted himself to a degree beyond his strength. In his exhausted condition he contracted the seeds of enteric fever, which, rapidly developing in very malignant form, carried him off before it had reached its crisis. His death has caused deep and wide-spread sorrow.

Dr. M. H. Henry has been appointed by the Commissioners of Emigration, Surgeon-in-Chief of the State Emigrants' Hospital, Ward's Island, New York. Dr. Henry succeeds Dr. Carnochan, who has held this position for many years.

Professor D. Warren Brickell, formerly of the University of Louisiana, has been appointed one of the Professors of Obstetrics and Diseases of Women and Children, and Clinical Midwifery, in the Bellevue Hospital Medical College.

To Remove Bad Tastes.—The bitter taste of quinine, colocynth, aloes, quassia, and other bitter medicines, may almost instantly be removed by chewing a small piece of liquorice-root, says *La Tribune Médicale*.

Hereafter the returns of deaths will be published monthly, instead of weekly.

PHILADELPHIA MEDICAL TIMES.

SATURDAY, AUGUST 16, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF DISLOCATION OF THE SHOULDER, OF SIX WEEKS' STANDING.

RUPTURE OF AXILLARY VEIN DURING ATTEMPTS AT REDUCTION—RECOVERY.

BY PROF. D. HAYES AGNEW, M.D.,
Clinical Lecturer at the University of Pennsylvania.
With Notes by De Forest Willard, M.D.

GENTLEMEN,—I bring before you this morning a woman, 60 years of age, who states that she received an injury upon her right shoulder six weeks ago, and that she has since been incapable of using her arm.

The diagnosis, upon inspection, is not difficult. The shoulder is flattened upon its external aspect; my fingers can be easily hooked beneath the acromion process; there is a round hard prominence in the axilla; the elbow is carried off from the side of the body, and cannot be brought in contact with it without pain; the arm is lengthened; and the hand of the injured side cannot be placed upon the sound shoulder while the elbow is held against the chest.

Such a combination of symptoms can only indicate that the head of the humerus has left its normal articulating cavity and taken a position high up in the axilla, thus constituting the subcoracoid form of these luxations.

The other varieties are the subglenoid, the subclavicular, and the subspinous. Let us study these during the etherization of the patient (Squibb's pure ether used). Their names are sufficiently expressive of their positions. In the subglenoid form, the head of the bone lies upon the under surface of the neck of the scapula, yet it does not merely passively lie there, but is firmly and spasmodically held by the stretched supra- and infra-spinati, subscapularis, coraco-brachialis, teres minor, and deltoid muscles. The long head of the biceps is sometimes torn across, and all of the muscles, having suffered laceration to a greater or less degree, are irritated and spasmodically contracted.

In the subcoracoid variety, the same muscles are put upon the stretch, although not subject to the severe tension of the former case. The capsular ligament is badly torn, and in some cases the coracoid process may be fractured. Almost all subglenoid luxations become subcoracoid after a few hours, by the contraction of the muscles. The subclavicular is exceedingly rare, and is easy of recognition.

The subspinous is the only backward form known, and is quite rare. (Boyer says that it cannot occur without fracture of outer lip of glenoid.—De F. W.) Should it occur, however, the supra-spinatus would still be put greatly upon the stretch by being wound around the edge of the spine of the scapula; but the infra-spinatus and teres minor, which are inserted with it upon the great tuberosity, having their points of attachment brought nearer to the points of origin, would be relaxed. The subscapularis would be greatly elongated, or perhaps torn across, the humerus being rotated inward, and the elbow carried against the body.

In reduction, these two latter varieties are easily converted into one of the preceding forms, by simply elevating the elbow alongside the head and prying out the head of the bone, or by making traction downward towards the axilla.

The great frequency of dislocations at the scapulo-humeral articulation, equalling if not exceeding those of all other joints of the body, may be easily explained by the shallowness of the glenoid fossa, the extensive and varied movements to which the arm is constantly subjected, and the many powerful muscles which are attached to the upper extremity of the humerus.

In attempting, therefore, a reduction of a dislocation of this bone, it is essential that the force be applied in such manner as to favor the relaxation of the elongated muscles and then to assist them in drawing the bone to its place. True, a luxation may sometimes be reduced by traction, either downward, outward, or upward; but the most rational methods are certainly those which act upon the above principles.

It is for this reason that I prefer the plan of White or La Mothe, modified as described by Dupuytren, since by carrying the arm upward alongside the head, the supra-spinatus muscle, which is the one elongated to the greatest degree, is thoroughly relaxed, especially if the great tuberosity be rotated outward. The practical steps of this manipulation will soon be shown you, and I have found it almost uniformly successful in reducible cases.

Should this fail, however, traction may be made downward, with the heel in the axilla, as in Cooper's method; or outward, as recommended by Malgaigne. Still unsuccessful, either from a closure of the rent in the capsular ligament, or in consequence of adhesions, further extension may be made by a fillet attached to the arm and given to assistants or attached to pulleys, the counter-extension and fixation of the scapula being accomplished by a broad band through which an opening has been made sufficient to admit the arm to the shoulder. The traction can now be made in the various directions as before, but all the movements must be made slowly, steadily, and gradually.

The plans devised for the reduction of difficult cases have been many, but the general principles are apparent, and would suggest themselves to the mind of any thinking surgeon. In cases of long standing, the reduction, which is usually easy in a recent case, becomes either difficult, dangerous, or impossible. When the means already mentioned fail, Jarvis's adjuster may be tried; but when great force in any form is applied, the risks correspondingly increase. Fractures or severe lacerations have frequently occurred, the axillary vessels having been torn upon several occasions. I have never witnessed this accident, but it is, as you can readily see, a source of much danger, and should be always borne in mind, and carefully avoided if possible; although

I regret to say that neither the violence of injury inflicted at the time of the accident, nor the amount of subsequent inflammation, yields us any guide for prognosis in these cases.

In the case before us, the bone has been displaced for six weeks, and various attempts at reduction have been made, yet she has never suffered from pain and swelling, and we will hope that the adhesions are slight. Of course we look for some difficulty after this lapse of time; yet you will remember how frequently cases of luxation of two or three months' duration present themselves at this clinic,—two such cases having been reduced last week, as you recall, both with comparative ease.

I now seize the arm, and gently rotate it little by little, in order to break up all the adhesions which may have occurred. They do not seem strong, and the head of the bone is movable. I next elevate the arm alongside the head, rotate the great tuberosity outward, and, making counter-extension by placing my foot upon the acromion, pull steadily, cautiously, and unremittingly upward, for nearly ten minutes, the object being to bring the head upon the margin of the glenoid; and then quickly perform the second manipulation by bringing the arm quickly down and across the breast, while an assistant places his fist in the axilla. This movement, so successful in recent cases, fails in this instance.

Let me again search for the obstacle, and remove it if possible. I again rotate the arm until the head of the bone seems freely movable, and then make traction directly outward from the body, the counter-traction being made by the hands of an assistant. Again I fail.

This is one of the cases in which subcutaneous division of the capsular ligament has been recommended; but I do not consider it a safe operation, nor is it satisfactorily successful in accomplishing the end desired. Much more force could easily be applied by means of towels and pulleys; but there is always great risk of tearing the vessels or nerves, and an arm was even entirely avulsed by Guérin. We may try these methods, however, with caution. Before doing so, however, I will attach a fillet to the arm, and make one more attempt by La Mothe's method, as before. I draw steadily and perseveringly for several minutes, while an assistant's hand is held in the axilla to guide the head of the bone towards its cavity. It seems to ride upon the rim of the glenoid, but will not enter, even though I now bring down the arm over his closed fist. The case is certainly a stubborn one; but we will try another method.

NOTES BY DE FOREST WILLARD.

Just at this moment, a sudden and rapidly forming swelling appeared over the right pectoral region, distending in an instant the entire right breast, rendering it exceedingly prominent, and forming a firm but fluctuating tumor.

Simultaneously appeared the most alarming symptoms of marked alteration in the circulation. The patient instantly became cold, clammy, and collapsed; respiration ceased, the eyelids were half closed, and the heart's action was barely perceptible over the apex, and not at all at the radials. Professor Agnew's thumb at once compressed the subclavian artery, while the tongue was drawn forward by a tenaculum, and cold douches, ammonia, artificial respiration, etc., instantly tried. At first it seemed that the patient would die in a condition of fatal syncope; but by the opportune presence of a strong electric battery the current was quickly passed along the phrenic nerves, and in a few moments feeble respiratory efforts became visible. The application was continued for fifteen minutes, at the end of which time the patient had rallied so that the pulse was plainly perceptible at the wrist, and the surface commenced to show signs of warmth and life.

Preparation had meanwhile been made to ligate the subclavian, but upon removing the pressure it was found that the pulse could be felt at the wrist with a force equal to that of the other side, that the tumor was not tense and distended, and that it did not pulsate, neither did it seem to be filling with any rapidity or force.

The conclusion was therefore educed that the axillary or some other large vein had been ruptured, rather than the artery. No small vessels could have yielded so large and rapid a hemorrhage. Firm compresses were therefore applied over the swelling, and confined by a broad bandage, while pressure was kept up for two hours upon the subclavian artery in order to lessen the supply of blood coursing through the arm.

Meanwhile, stimulants were freely administered and artificial heat constantly applied to the extremities, and in three hours reaction was established to such extent that the patient seemed out of immediate danger.

The swelling which was accurately defined by the pectoral fascia extended slowly backward, but did not increase in tenseness. The patient passed a comfortable night, complaining, however, of stinging pains in the arm and breast, but with no further symptoms of depression. From this time onward her improvement was rapid, the pain and swelling gradually subsiding, and in ten days she was discharged from the ward. The blood gravitating downward and backward below the fascia finally made its appearance beneath the skin, where it remained until it was absorbed, weeks afterwards. Compression was continued for several weeks, followed by stimulating liniments; and now, ten weeks afterwards, having declined any further attempts at reduction, she has an arm which, although stiff and somewhat painful, seems to be forming for itself a new articulating cavity upon the inferior costa of the scapula.

In searching for other instances of this unpleasant accident, I find but one case in which a rupture simply of the axillary vein is recorded; and the cases of laceration of the artery are also quite rare. After a somewhat extended search through the reports of the hospitals of America and England, and in the various journals published in these countries, I have succeeded in collecting the following cases. The most complete records have been found in Malgaigne's Traité des Fractures et des Luxations, and in Flaubert's Mémoires sur plusieurs Cas de

Luxations, etc., Répertoire d'Anatomie et de Physiologie, 1827, and Hamilton's Treatise on Fractures and Dislocations, 1871.

The sole case of laceration of the axillary vein alone is that mentioned by Froriep,*—a scrofulous woman, æt. 36, in whom the dislocation had existed for twenty days. The vein was torn entirely across, and the patient died in one and a half hours.

This, and the one of Agnew's above recorded, constitute the entire list of accidents to the vein alone.

Platner† has put on record a case in which both vein and artery were injured, the patient dying of hemorrhage from the subsequent rupture of the sac.

Guérin‡ tore the entire arm from the body of a woman 63 years of age, in reducing a luxation of three months' standing, and of course all the structure at the axilla must have been severed.

Charles Bell§ also reports that during the use of the ambe at the Newcastle Infirmary not only was the axillary artery ruptured, but also the surrounding structures to such an extent that immediate amputation became necessary. It is highly probable that the vein was also injured; but the report is incomplete, especially in the fact that the result is not stated.

In Leudet's‖ case, in Rouen, 1824, an enormous swelling appeared in the axilla, immediately after reduction, which, though imparting no pulsation to the fingers, could be seen with the eye to rise and fall with the contractions of the heart. Gangrene supervened in three days, and the patient died in ten, of hemorrhage. A post-mortem examination revealed the fact that the artery was torn across, the rim of the glenoid fractured, and the muscles lacerated.

In Johnson's Medico-Chirurgical Review¶ are recorded several cases from the French of Flaubert,** in which that author states that he himself saw four cases of injury to the axillary or brachial vessels or nerves, and believes either that he has been singularly unfortunate or that other surgeons have not been honest in their reports.

One of these cases was an axillary dislocation, attempts at the reduction of which were followed by an enormous swelling, syncope, and extreme prostration, the patient narrowly escaping. Another was a dislocation of the elbow, which was followed by a similar result, the brachial artery probably having been injured. Another was undoubtedly emphysematous, as the tumor appeared during violent outcries, and was supra-clavicular, extending over the shoulder and to the back; and in the remaining case the nerves were lacerated. He also reports another case in which the patient died after attempts at reduction of a dislocated hip.

Verduc†† ruptured the artery, and the patient died.

Petit* and Delpech† met with similar accidents and similar results.

David,‡ Hôtel de Rouen, reduced a luxation of several weeks' standing, using immense force, and the patient died of mortification, the supposed cause being a rupture of the artery.

Pelletan,§ while attempting to reduce a luxation of four months' standing, discovered a tumor which he supposed to be emphysematous, but upon opening it the patient perished from hemorrhage.

Dupuytren‖ reports a case in which a woman 60 years of age had an axillary dislocation of six weeks' standing successfully reduced. Two or three months subsequently, however, a tumor appeared in the axilla, which, being mistaken for an abscess, was opened, and the patient died on the eighth day from secondary hemorrhage.

Nélaton¶ also had an aneurismal tumor appear three months after the reduction of an axillary dislocation, for the cure of which he tied the subclavian, but with what result is not recorded.

Malgaigne** was compelled to desist from attempts to reduce a displaced humerus of sixty-eight days' duration on account of the occurrence of a tumor in the axilla, which being, however, subsequently arrested in its growth and absorbed under the use of ice, compression, etc., he decided to be due to rupture of the muscular branches instead of the axillary.

Desault†† met with two or more cases;‡‡ but they are to be received with some doubt, having been considered by him as "tumeurs aériennes," or instances of emphysema. Malgaigne, however, believes that they were produced by a rupture of at least the muscular branches of the artery, "the pulse of the patient being scarcely perceptible in the side affected and a syncope which supervened appearing to favor the suspicion of a rupture; but—in the absence of fluctuation, of pulsation, and of any change in the color of the skin—the return of the pulse, the circumscription of the tumor, its resistance, and the sound caused by striking upon it, produced the belief that it was owing not to an effusion of blood, but to a disengagement of air that had been confined in the now lacerated cells of the cellular membrane." The tumor entirely disappeared in thirteen days, leaving a large ecchymosis, however, for a month or more.

Callender§§ tore a small opening in the upper wall of the artery in attempting to reduce a dislocation of six weeks' standing. He very wisely laid open the tumor, turned out the clot, and tied the vessel both above and below the bleeding orifice. The patient died soon after with symptoms of pulmonary embolism.

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* Veraltete Luxationen, etc., Weimar, 1834, p. 35.
† Hamilton on Fractures and Dislocations, 1871, p. 564.
‡ Erichsen's Surgery, fifth American edition, 1869, p. 307.
§ System of Operative Surgery, vol. ii. p. 247.
‖ Gibson's Surgery, 1835, vol. i. p. 346.
¶ Vol. xi. p. 452.
** Mémoires sur plusieurs Cas de Luxations, etc., Répertoire d'Anat. et de Phys., 1827, obs. 3.
†† Opérations de la Chirurgie, 1693, t. i. p. 559.

* Hamilton, *op. cit.*, p. 564.
† Malgaigne, Traité des Fractures et des Luxations, 1855, t. ii. p. 152.
‡ Amer. Jour. Med. Sci., 1828, p. 136, and First Lines of Pract. Surg., S. Cooper, vol. ii. p. 466.
§ Rép. Gén. d'Anat. et de Phys. Path. et de Chirurg. Clinique, 1827, t. ii. p. 95.
‖ Lecons Orales, second edition, t. iii. p. 12; Pelletan, *op. cit.* p. 83.
¶ Erichsen, *op. cit.*, p. 307.
** Desault's Works by Caldwell, p. 149; Journal de Chirurg., t. iv. p. 301.
†† *Op. cit.*, p. 150.
‡‡ Bichat's Mémoire sur la Luxation de l'Humerus, in § 74 says occasionally, but in § 68 twice.
§§ St. Barthol. Hosp. Rep., 1866, vol. ii. p. 96.

Warren,* of Boston, reports a case in which a man 30 years of age fell and dislocated his shoulder. Violent attempts at reduction were made, and, according to the statement of the patient, the booted foot of the operator was placed in the axilla. When he entered the hospital, the arm and shoulder were greatly swollen, but after this subsided the bone was found in its normal place. Five days subsequently, during a fit of coughing, something "gave way," soon followed by a large swelling and discoloration in the axilla. No pulse could be discovered at the left wrist, and the tumor in the axilla became enormous. In six weeks an abscess formed and opened, discharging dark, coagulated blood. Upon the third day there was a sudden gush of blood, which was arrested by pressure, and on the following day Warren tied the subclavian artery. The patient made a good recovery, and in one year afterwards slight pulsations could be distinguished in the radial. In sixteen months the man was greatly improved.

Gibson† twice met with the accident, and was honest, as usual, in reporting each case. The first was in the person of a man 50 years of age, whose left shoulder had been dislocated for two months. For two weeks subsequent to the accident it had been treated as a fracture, and after this ineffectual attempts had been made to reduce the deformity. He was admitted to the Philadelphia Hospital, and, after various manipulations and the trial of all the ordinary means employed, success was at last attained, and the head of the bone slipped into its place. In a short time, however, a swelling was noticed in the axilla, which slowly increased in size, the patient being painless and cheerful, until the evening, when, the symptoms of depression becoming alarming, Professor Gibson was sent for, but arrived too late to save the patient.

At the autopsy the artery was found entirely torn across, it having been firmly bound down by old adhesions to the capsule of the joint where it surrounded the neck of the bone.

His second case was a man 35 years of age, who had dislocated his shoulder nine weeks previous to his entrance into the hospital, and who had already passed through four attempts at reduction, in one instance having been suspended by the axilla over a door.

After a week's depletion, in accordance with the practice in vogue at that time, the attempt was again made by Gibson, assisted by a number of prominent surgeons. Extension and counter-extension were maintained by pulleys for half an hour continuously, after which rotary movements and all the usual methods of reduction were faithfully but cautiously and gently tried for one and three-quarter hours, when they were finally successful.

Upon the next day, however, a pulsating tumor was discovered in the axilla, and on the following morning Gibson proceeded to tie the subclavian. The man, however, sank, and died on the eighth day.

At the post-mortem examination, which was carefully and accurately made, and which is fully described in his report of the case, the left hand and forearm were found in a state of incipient gangrene, while the ligation-wound showed no attempts at union.

The artery was firmly attached to the bone and articular capsule by a ligamentous substance so compact and with so short a portion of the artery between this point of adhesion and the false attachment to the rib that it could hardly have escaped injury. The ends were separated half an inch, the utmost limit allowed by the adhering bands. The external coat of the artery formed the sac of the aneurism; but this had ruptured and allowed the contents to escape into the connective tissue.

"The walls of the true aneurismal sac were of so compact a texture, and its boundaries so well defined, that the conjecture of its having existed previously to the reduction of the bone and that its rupture was a distant and subsequent event, is rendered probable."

The great tuberosity of the humerus had been fractured, but had partially united.

Blackman,‡ of Cincinnati, attempted the reduction of a dislocation of sixteen weeks' standing, which had previously resisted the efforts of six men with pulleys for two and a half hours. The manipulations of reduction, rotation, abduction, and elevation had been continued about ten minutes, when a sudden tumefaction occurred in the pectoral region and rapidly increased in size.

No pulse could be felt at the wrist; and, believing the artery to have been ruptured, the axillary was tied at the upper third of its course. Pressure was made by a broad band and compressed sponge, and on the following day the bulk was greatly diminished.

The patient did well for several days, but on the eleventh he perished from a hemorrhage at the seat of the ligature.

Lister§ recently attempted the reduction of a dislocated shoulder of eight weeks' standing. The displacement was of the subcoracoid variety; and while pulling upward, as in La Mothe's method, he heard a distinct crack. No swelling appearing, however, and the head of the bone being still in its false position, various manipulations were employed, and the pulleys used, traction being made both downward, outward, and upward. The force employed was not excessive, and efforts were finally discontinued.

Almost immediately afterwards, however, his attention was directed to an enormous swelling which appeared below and behind the axilla, almost as large as an adult human head. The pulse being absent at the radial of the injured side, a rupture of the axillary artery was diagnosed, and the operation of tying it commenced. An incision was made directly into the axilla, and the extravasated partially-coagulated blood turned out.

* Amer. Jour. Med. Sciences, vol. xi., N. S., 1846; Med.-Chirurg. Transactions, vol. xxix. p. 25, 1846.

† Gibson's Surgery, vol. i. pp. 325, 334; Chapman's Phila. Jour. Med. and Phys. Sciences, 1823, vol. vii. p. 81; Amer. Jour. Med. Sciences, 1828, p. 136.

‡ Western Lancet, Nov. 1856.

§ Lancet, Feb. 1, 1873; Edinburgh Medical Journal, March, 1873.

The arm being held off from the side, the artery was so compressed against the head of the bone that no hemorrhage occurred; but upon being relaxed by the side of the body a free bleeding took place. The orifice was at last found to be concealed upon the posterior wall, from which a stream was so poured out into a cavity and reflected forward that it seemed to be a regurgitant stream from a large branch like the subclavian. Careful examination, however, proving that the main vessel was ruptured, a ligature was applied both above and below the opening, the vessel cut across, and the ends again secured. The opening was found to be about two lines in diameter.

The head of the bone was then removed, to facilitate subsequent reduction. The patient, although greatly reduced by the loss of blood, rallied a little, but soon sank, and died in three hours.

Mr. Lister, in his report of the case, regrets that he did not transfuse.

At the autopsy the explanation of the accident was evident, and is so instructive that I quote it in full:

"The surface upon which the head of the bone had rested in its new situation simulated cartilage in smoothness and firmness, and was formed anteriorly by a dense fibrous structure, strengthened with a considerable amount of osseous deposit in the form of a spicula, proceeding chiefly, though not exclusively, from the coracoid process and the surgical neck of the humerus: a state of things fully confirming the wife's report as to the long time that had elapsed since the accident. The broad and strong osteo-fibrous band thus connecting the humerus with the coracoid process had lain over the head of the bone, constituting a partial capsule for the new joint. At the same time it was intimately connected throughout, by condensed tissue, with the sheath of the axillary artery, which lay over it. Thus the vessel, instead of being surrounded by loose and yielding structures, as in the natural state, was attached, through the medium of the osteo-fibrous band, to the coracoid on the one hand and the neck of the humerus on the other; and when these bony points were separated from one another by the lever-like action of the humerus when the limb was drawn upwards, the artery as well as the band was necessarily subjected to violent traction. Accordingly, the band, as strong as it was, was found to have been torn right across, and the rent in it was exactly opposite to the rupture in the artery. The giving way of the vessel had been rendered the more easy by atheromatous degeneration of its walls, which was present in an advanced degree. The vein also showed evidence of having been extremely stretched, by considerable narrowing of its calibre at the same situation.

"The chief lesson to be learned from this sad case seems to me to be that in subcoracoid luxations there may be, as early as eight weeks after the accident, such adhesion of the artery to the scapula and the humerus as to make it dangerous to employ even the manipulative treatment without the pulleys, and especially the upward traction of the limb. For, as was remarked before, and will now be readily understood, the snap heard in the preliminary manipulation was in all probability caused by the rupture of the fibrous band above described, accompanied by the giving way of the vessel."

In common with Mr. Lister, Professor Agnew also believes that the method of reduction by traction upward is, in old dislocations, more liable to produce a laceration of the vessel; and although it has been his favorite mode, and will be continued in all recent cases, yet in those of long standing he will first attempt others which do not put the artery so greatly upon the stretch.

He also believes that the limitation of the circulation by controlling of the subclavian assisted greatly in keeping a sufficient supply of blood in the brain to prevent fatal syncope, and that in such sudden cases compression even of the abdominal aorta would be beneficial in keeping up the proper meningeal supply.

Another case, which would come very properly under a report of this kind, is recorded by Adams.*

The rupture of the artery in this case was not produced by the surgeon, but by the same accident which occasioned the luxation. The patient was thrown down by a runaway horse, and was brought to the Jervis Street Hospital with his left humerus dislocated and with an enormous swelling of the axilla. No pulse could be detected in the radial or brachial arteries of the injured side, and the patient was cold and prostrated, and so relaxed that the bone was slipped into its place by a slight manipulation.

The deep axillary swelling remained stationary for several days, no pulsation being perceptible either in it or in the arteries of the limb. After ten days, O'Reilly found the tumor upon the increase, and tied the subclavian in the third portion. The patient was seized with erysipelas and lost two fingers by gangrene, but he finally recovered, and was under observation several years afterwards.

The above constitute all the cases which have been discovered, and I believe that the report is complete to the present time.

Recapitulation.—Rupture of vein alone, 2 cases,—Froriep and Agnew: 1 fatal, 1 recovered.

Rupture of vein and artery, 3 cases,—Platner, Guérin, Bell: 2 fatal, 1 not stated.

Rupture of artery, 19 cases,—Leudet, Flaubert, Verduc, Petit, Delpech, David, Pelletan, Dupuytren, Nélaton, Malgaigne, Desault (2 cases), Callender, Warren, Gibson (2 cases), Blackman, Lister, and Adams: 12 cases fatal, 6 recovered, 1 not stated.

The axillary artery was tied in 3 cases,—Blackman, Callender, Lister: all fatal.

The subclavian was ligatured 4 times,—Gibson (fatal), Warren (successful), Adams (successful), and Nélaton (not stated).

(Gibson did *not* tie the subclavian in his first case, as reported in most of the Surgeries.)

Total, 24 cases: 15 terminated fatally, 2 are uncertain, and 7 recovered.

* Todd's Cycl. Anat. and Surg., art. on Shoulder, Abnormal Conditions of, p. 616; Holmes's Surgery, vol. ii. p. 827.

The successful cases were those of Desault (2), Flaubert, Malgaigne, Warren, Adams, and Agnew.

The case of Adams perhaps ought not to be reckoned with the others; yet it is so parallel an accident that I have deemed it advisable thus to place it.

Serious injury has also frequently been done to the axillary nerves; in some cases even the plexus being torn from the spinal column, in others various degrees of paralysis of the arm having followed. Malgaigne, Hamilton, Lenoir, Larrey,* and others report a number of cases.

Michaux (Hôpital de Louvain, 1841)† in reducing a luxation of the elbow tore off the median nerve and the brachial artery. He amputated, and saved his patient.

Various other accidents are reported as the results of efforts at reduction, but the above are all that are directly connected with the dislocation under discussion.

The cases are certainly sufficiently numerous to warn us against employing too much force; yet in the immediate case under notice only manual traction was made.

ORIGINAL COMMUNICATIONS.

YELLOW FEVER.

BY HARVEY L. BYRD, M.D.,

Professor of Diseases of Women and Children in the College of Physicians and Surgeons of Baltimore; President of the Epidemiological Association of Maryland, etc., etc.

Read before the Association by Appointment.

IN presenting yellow fever for the consideration of the Epidemiological Association, no attempt will be made at mere literary display, or the clothing of ideas and facts with the charms of rhetorical drapery. As all science is but nature understood, and she is when unadorned adorned the most, our subject will be treated in as simple and perspicuous language as practicable. It must, however, be obvious that within the limits of a brief paper like this only the outlines, so to speak, of a subject so voluminous can be drawn; and attention will therefore be directed chiefly to those facts and observations which have come more immediately under our personal notice, or have been gleaned with some care from the writings of physicians of large experience in treating the disease, as those most likely to afford any particularly attractive features to a scientific body like this.

HISTORY.

Nothing concerning the source or origin of yellow fever can be obtained from the various names by which it has been recognized or described. They relate either to the place of visitation or invasion, or to some fancied or real pathological change of most frequent occurrence during the prevalence of the disease in an epidemic form. It was probably first introduced into Southern Europe, the West India Islands, and the continent of North and South America, from the west coast of Africa, its natal place. Had European ambition for extended dominion and territory, or the avarice and cupidity of the New England slave-trader, never attempted the invasion of the jungles of Western Africa, there is reason to believe that the hecatombs which have marked the visitations of the pestilence in the West Indies and on the shores of this continent, at least, would never have been known. The autochthones or aborigines of those lands knew nothing of the disease until brought to them by ships engaged in a most unholy commerce. As it is chiefly with the disease as it concerns us of the United States we purpose to deal, it may be observed that the summer, or warm season of the year, is the period during which its visitations have prevailed epidemically and been most destructive in their character.

LOCALITY.

As it is comparatively unknown in the country, and confined almost exclusively to cities and large towns, as an epidemic, and as in those cities and towns holding commercial relations with tropical countries it always establishes itself before interior localities become affected, the importance of strict quarantine regulations in such commercial cities during the hot season cannot be overestimated. It might prove interesting, did time permit, to introduce the date of its visitation to the several cities of our country, and the duration and severity of the same; but we must pass on, merely mentioning a few of the principal cities in which it has prevailed, viz.: Boston, New York, Philadelphia, Baltimore, Norfolk, Wilmington, Charleston, Savannah, Mobile, New Orleans, and Galveston. It will be observed that all the places named are seaport cities, or cities engaged in foreign commerce. From Charleston and Savannah it has been carried when epidemic to Beaufort and Blackville, South Carolina, and to Augusta and Darien, Georgia; from Mobile to Selma and Montgomery, Alabama, and from New Orleans to Natchez and Vicksburg, on the Mississippi River, and other places of note, thus *proving* that it is a *transmissible* disease.

SEASON.

With a protracted temperature in our sea-board cities of from 85° to 93° Fahr., the introduction of the yellow-fever germ or fungus will as certainly develop that disease in the unacclimated Caucasian, as the introduction of the smallpox germ will give rise to that scourge in an unvaccinated community.

CAUSE.

From what has just been stated, it will be seen that we believe the disease to depend upon a *specific* cause, and that cause to consist of organic matter. This theory is sustained by a number of well-attested facts. Like much of the flora indigenous to hot climates, the yellow-fever germ or fungus requires for its proper development and growth a certain continuous temperature. Eighty-five to ninety or

* Bul. de la Soc. Chirurg., i. 1.
† Debruyn, Des Luxations du Coude, Thèse Inaug., Louvain, 1843, p. 77.

ninety-five degrees of Fahrenheit is the temperature which experience has shown to be most favorable to the spread of yellow fever epidemically in this country, and like exotic plants, when *exposed, the yellow-fever germ is effectually destroyed by frost.* In the West Indies, and in the tropical districts of this continent, where the summer temperature is perpetual, these germs have become naturalized, so to speak, and the disease is found to exist perennially in some cities, by the continuous introduction of the unacclimated.

The winters in all the sea-coast cities of this country, except possibly New Orleans and Galveston, are too cold for the yellow-fever germs or fungi to be perpetuated, and they must, therefore, be re-introduced from season to season in order to the production or development of the disease. It is a disease *sui generis*, as contagious under favorable circumstances as smallpox or hooping-cough. Assertions of this character are not made lightly, or without due consideration of their import and value. *It bears no striking resemblance to any other form of disease*, and when once carefully studied at the bedside, and in the dead-house, can *never be mistaken*, by an intelligent observer, *for any other affection.* When *the important test* is applied, that is recognized as of such *uniform value in other known forms of contagious disease*, it will be found to respond with *much greater* emphasis and distinctness in yellow fever *than in any other disease;* viz., *one well-defined attack of yellow fever protects* the survivor, *with almost absolute certainty*, from a subsequent one. On this question, Dr. Bartlett says,—

"This point in the natural history of yellow fever was made the subject of a special and formal investigation, after the cessation of the epidemic at Gibraltar in 1828. At the instance of Sir William Pym, a commission was appointed for the express purpose of collecting such facts as might settle the question. The commission consisted of thirteen physicians,—French, English, and Spanish. The medical men of Gibraltar, civil and military, thirty-three in number, all of whom had been familiar with the disease, appeared before the commission and stated the results of their experience. The aggregate number of patients with the disease, seen or treated by them all, amounted to about *twenty-seven thousand.* These physicians were invited to state the number of cases in which they had known the disease to occur a second time, and, as simple assertions were inadmissible, the commission decided that they would receive those cases only in which the symptoms of the first and second attacks could be given, whether these symptoms had been noted by the physicians who communicated them, or whether they came through the patient himself but were unequivocal. The whole number of cases of presumed double attack, thus communicated to the commission, was only *thirteen.* Upon these thirteen cases each member of the commission expressed his opinion by a vote, writing upon a piece of paper the word *evident, probable, doubtful*, or *inadmissible*, for each case. A majority of the commission declared in this manner *one* of the cases *evident*, three of them *probable*, and the remainder *doubtful* or *inadmissible.* The following fact, on a much smaller scale, but hardly less conclusive, was communicated to the commission by M. Broadfoot. The military domestics employed during the epidemic in the care of the sick were one hundred and sixty in number, and none of them had had yellow fever in any anterior epidemic. The civil domestics were sixty-one in number, and, with two exceptions, had already had the disease. These two, and these two only, among the last, contracted the fever, and forty of the military domestics, all the rest escaping. Other facts of a similar character were also presented to the commission. Slight and mild attacks of the disease seemed to be quite as preservative against its recurrence as grave and severe ones; and it did not appear that the protective effects were in any degree diminished by time."

RACE.

The *native* African is *exempt* from the disease as it has prevailed in this country, and even his descendants, for four or five generations, in our Southern cities, enjoy great immunity from it. In 1820, during a devastating epidemic in Savannah, Georgia, Dr. W. C. Daniel, a most enlightened and distinguished practitioner, who was personally known to us for several years before his death, stated that "near three hundred native Africans recently captured on the coast by government vessels were brought to Savannah, and remained there during the epidemic, and not one of them took yellow fever." We have never seen a case of *black vomit* in a genuine negro, however long his ancestors may have resided in the South. The most susceptible race is the Caucasian, and the purer the type the greater the liability to the contagion. The mulatto occupies, so far as susceptibility to the fever is concerned, an intermediate place between the Caucasian and African races, being less liable than the former and more exposed to an attack than the latter, his liability or exemption being dependent on the greater or less amount of Caucasian blood. Thus, the mulatto—half white and half negro—may be said to be half as liable to an attack on exposure to the contagion as the white man; the quadroon, one-fourth as much so; and the octoroon, or third remove from the white race, one-eighth. Are these statements of no significance? Extended observations have proven them facts.

SEX.

More males fall victims to yellow fever than females. Greater exposure to the weather, if it should have no other effect, predisposes the male sex more than the female to the epidemic influence. As a rule, the *strong* and *robust* at the commencement of an epidemic suffer more than those who, from feeble strength, are unable to take active part in business concerns.

ACCLIMATION.

As already stated, one attack almost certainly protects the individual from a subsequent one. Continuous residence for many years in yellow-fever regions produces a degree of exemption

which protects the individual from the disease in mild epidemics in many instances. But nothing affords surety to the white man in severe visitations save a previous attack of the disease.

MARSH MIASMA.

Observation shows that certain precedents are followed by certain subsequents. Both observation and experience prove that of all the laws by which events are linked together the relation of cause and effect is the most unvarying and the most constant; and we are led to believe that the laws which govern the development and motions of the heavenly bodies are not more unvarying in their operation than those which control the action and influence the development of the small and minute particles or atoms of matter existing in all parts of creation. Wherever matter exists, force resides, which latter can be brought into active operation under its own or appropriate stimuli.

To concede the government of the sun and the planets to the operation of certain and immutable laws which we know to be true, as calculations concerning them have been made with mathematical accuracy and precision, and to deny the existence and operation of equally certain and unchangeable laws in the development and treatment of disease, would be to rob Deity of half his attributes and perfections. While we admit that the same accuracy and precision in the present state of our knowledge are unattainable in our investigation of the causes of disease and the action of remedies, we are nevertheless not to conclude that order and symmetry, relation and harmony, do not exist in the microscopically small as well as in the great bodies of the universe, simply because the laws which govern them cannot now be presented with unerring accuracy and precision or clothed in the imposing array of mathematical formula. Contingency and verisimilitude are therefore but the legitimate offspring of human ignorance and superstition, and hence cannot be supposed to have any existence in an enlightened and cultivated intellect.

Miasma or *marsh effluvium*, the prolific source of intermittent and remittent or bilious fever so called, is *not* the source or cause of yellow fever. In certain districts and communities where bilious fever is an annual visitant, and where its appearance is looked forward to with the greatest dread and apprehension, yellow fever is totally unknown. Georgetown, S.C., situated in the midst of the rice-growing region of the Pedee and Waccamaw Rivers, has never suffered from a visitation of yellow fever, though on the coast and less than fifty miles from Charleston. Yet in this notoriously insalubrious climate, though bilious fever has scourged it more or less frequently since its early settlement, with a violence, it was said a few years ago, unsurpassed by any other town in the world except Alexandria in Egypt, never has a single case of yellow fever originated within its limits. It is known that yellow and bilious fevers may exist or run *pari passu* for a time in certain localities; and from this circumstance, doubtless, the idea of its miasmatic origin was conceived. This hypothesis is erroneous, as the two diseases differ as widely in their symptoms and pathological appearances as any other known diseases whatsoever. In fact, there is great paucity in the common phenomena of the two fevers, and no parallelism whatever can be drawn between the leading symptoms. They are *proven* separate and distinct in various ways; but only some of the more prominent evidences of this assertion need be introduced in this place. First, *marsh miasma* will produce intermittent and remittent fever alike in the white, copper-colored, and black races, when exposed to its action, and it will continue to do so from year to year so long as the parties reside in miasmatic localities, no point of acclimation or exemption being ever attained. Yellow fever, on the contrary, affects the Caucasian race chiefly, the African being almost wholly exempt in the Southern States, however much exposed. Again, one attack is almost absolute protection against a subsequent one, no matter to what extent the party may be exposed to the disease. More could be said on this point; but this must suffice.

A careful examination of many localities where yellow fever has prevailed proves them free from even the existence of marshes, and therefore from marsh miasma. Dr. Gillhurst says, in speaking of Gibraltar, "It cannot be admitted that Gibraltar furnishes sources from which *malaria, in the usual sense of that word*, arises sufficient to account for the appearance of a malignant fever." "The island of Barbadoes is described," says Dr. Bartlett, "as rocky and dry, with very little marshy or wet land. Brimstone Hill, in the island of St. Kitts, is a conical mound rising to the height of seven hundred feet above the level of the surrounding plain. It is described as a volcanic rock, dry, nearly destitute of vegetation, and desolate in its entire aspect. It is generally free from yellow fever, but not uniformly so. In 1811 and 1812 the disease appeared there, and was very fatal. Stony Hill, in Jamaica, is 1300 feet above the level of the sea. It is described as an entire mass of calcareous rock, covered with trees except on the summit, but with little soil, and producing scarcely any grass or plants; and yet yellow fever does sometimes prevail extensively among the troops stationed on its summit."

CONTAGION.

In the sense in which the term contagion is usually understood, yellow fever is a contagious disease. Some have objected to the term, even where the individuality of the disease is admitted, and say that it cannot be used to designate that mode of propagation which we recognize in smallpox, measles, etc. If what was said a while ago, when speaking of its *transmissibility*, and of the temperature in which the germs are found to develop and propagate most rapidly,—viz., prolonged heat of 85° to 90° Fahr.,—be borne in mind, it will be readily understood how the inhabitants of a city in which these germs have been introduced will sooner or later become impressed by them, and how strangers from healthy localities may contract the

disease when visiting an infected city even for a few hours, and sicken and die, or carry the germs of the fever to healthy communities. Instances under our own notice and the observation of intelligent physicians have so frequently occurred, and are so well known and understood by the non-professional even, in yellow-fever districts, that more than mere reference to the fact would seem a work of supererogation in a paper like this.

Not only have the germs or fungi of yellow fever been carried from an infected to a healthy community, but even the clothes of persons on dying from the disease have conveyed the germs, and infected, when exposed and handled, relatives and friends in healthy communities hundreds of miles away. You may denominate the contagion of yellow fever a contingent one; but it is nevertheless a contagion.

NOMENCLATURE.

Yellow fever, mal de Siam, typhus icterodes, malignant pestilential fever, Bulam fever, Mediterranean fever, etc., are among the names which have been applied to the disease under consideration. The eyes and skin are tinged with an orange hue earlier or later in a large proportion of cases; and this circumstance has given rise to the name by which the disease is known among English-speaking people as yellow fever.

It is a disease emphatically of one paroxysm, peculiar in its character, and should be classed among fevers of the *continued type*. Historically, it is a disease of towns, seldom or never assuming an epidemic character in the country or sparsely populated districts, and is therefore a local, and never a general, epidemic. The *materies morbi* has been stated already to consist of germs or fungi, which, in a certain temperature, may be communicated from one individual to another, and even conveyed by persons or clothing to great distances, sufficiently active to infect healthy unacclimated individuals and communities.

(To be continued.)

NOTES OF HOSPITAL PRACTICE.

CASE OF ABSCESS OF LIVER WITH ULCERATION OF COLON.

BY FRANCIS L. HAYNES, M.D.

THE following notes, giving the history of a case treated in the medical ward of the Episcopal Hospital during the service of Dr. Herbert Norris, are, I think, of sufficient interest to merit publication:

J. R., aged 48, a native of England, and by occupation a weaver, was admitted April 5, 1871. He stated that he had been sick for five weeks, during which time he had suffered from profuse diarrhœa; he had had a chill daily, "for some time." Although he had found his way to the hospital alone, he was extremely weak, and the powers of his mind were so much impaired that it was impossible to obtain any satisfactory history of his illness.

On the evening of admission the temperature was 103½°; pulse 128, very weak. The abdomen was tender on pressure, especially over the stomach and liver. Dulness on percussion existed over the base of the right lung, and crepitant râles were heard in that situation.

April 6.—Passed two liquid stools containing a considerable quantity of bright-red blood. One drachm of solution of morphia was directed to be given every four hours.

April 7.—Passed three yellow stools, all very liquid and containing numerous flocculi.

April 8 and 9.—No evacuations from the bowels occurred. His tongue, which had been coated white, assumed a brownish hue. He grew weaker and more stupid. Ecstasis was now noticed.

He expired on the afternoon of the 10th, immediately after a profuse hemorrhage from the bowels.

The treatment consisted in the administration of large doses of quinia, opium to check diarrhœa, alcoholic stimulus, and large quantities of liquid food.

RECORD OF TEMPERATURE AND PULSE.

	MORNING.	EVENING.		MORNING.	EVENING.
April 5, temp.		103½°	Pulse,		128
" 6, "	101½°	101°	"	128	120
" 7, "	98°	101°	"	114	120
" 8, "	101°	102°	"	138	138
" 9, "	102°	102°	"	136	138
" 10, "	102°	106½°	"	136	152

Autopsy, nineteen hours after death.—Rigor mortis well developed; body not emaciated; the dependent portions of the body and the anterior surface of the arms discolored blue.

Head.—Brain and its membranes presented marked venous congestion.

Thorax.—A small amount of serum in pericardial sac. Heart very flabby; loaded exteriorly with fat; a large "chicken-fat" clot occupied the tricuspid orifice and was intimately connected with the valve. The walls of the heart were softened, could be readily torn, and on microscopic examination presented marked fatty degeneration of the muscular fibres.

The right pleural sac was nearly filled with bloody serum; the lungs were somewhat congested, the base of the right lung intensely so; diaphragmatic and pulmonary pleura adherent on right side.

Abdomen.—Stomach normal, except that its epithelium presented under the microscope the appearance of fatty degeneration. The walls of the small intestine were very thin, and the epithelium of its lower portions had separated in the form of flakes.

The cæcum was thickly studded with circular ulcers, some quite deep, some superficial. They varied in diameter from one to one-eighth inch. A few ulcers were found in the ascending and transverse and one in the descending colon. The walls of the descending colon were very soft, nearly black in color, and their inner surface was covered with dark, thick blood. Rectum normal; mesenteric glands moderately enlarged.

The *liver* was enlarged, and weighed five and a half pounds. *On its convex surface, bounded above by the diaphragm, was a large abscess*, which contained eight fluidounces of thick gray pus. The walls of the abscess were very ragged, and presented no appearance of a limitary membrane. On microscopic examination the liver-cells were found to be distended by fat-globules.

TETANUS AFTER HYPODERMIC INJECTION OF QUINIA.—Two cases are recorded by Dr. Odevaine, in the *Indian Medical Gazette*. In the first case he employed sulphate of quinine dissolved in citric acid; in the second, neutral or soluble quinine, without any acid. An abscess formed in the situation of the puncture, followed by tetanus, and the death of the patient. Dr. Odevaine concludes that quinine exerts a special action on the nerves, or that the paludal cachexia, against which he was acting, exerts a peculiar influence on them.

TRANSLATIONS.

SYPHILITIC INFECTION WITHOUT COITUS.

A Clinical Lecture before the Berlin Medical Society, by PROF. LEWIN. Translated

BY DR. WM. ASHBRIDGE.

THE women and children presented at this lecture had all been infected with syphilis, but none of them by means of sexual intercourse. Some of the women shared their disease with their children, but it had also been communicated to them in other ways. For the sake of clearness and convenience, the nine patients were divided into several groups; the first group consisting of two women and their children. The first of these patients was an unmarried woman, in whom the disease manifested itself in a maculated and papular eruption, as well as in some other forms. Upon her under lip there was an induration the size of a bean. The second patient, a married woman with symptoms of constitutional syphilis, presented two similar indurations, one on either side of the nipple. These two parts, the under lip and the nipple, were in the respective women the points at which the disease made its entrance into the system. That this was true—that these indurations were really the seats of the initial lesions, and not later manifestations of the constitutional infection—was proved not alone by the subjective but also by the objective evidence adduced in the two cases. In regard to the subjective evidence (*i.e.*, the history of the case as given by the patient herself), the first patient, an unmarried girl of twenty, who had never before suffered from a similar affection, and had not been in the hospital nor under the observation of the police, gave the following history of herself. At the seventh month of her pregnancy, she noticed an apparently insignificant point of irritation upon her lower lip, which at first caused her no anxiety, but was very sluggish in healing, and, although it finally healed, left behind an induration. Some time before her own infection, she had noticed that the lips of her lover, who was the father of her child, were sore. After the birth of her child, occurring some weeks before the normal time, she noticed that it was weakly and covered with rashes and sores, and she was compelled to seek aid in the hospital.

The second patient, a married woman, the mother of three children, who up to this time had been healthy, stated that eight months after her last confinement, which had been a normal one at full term, she took to her breast a strange infant. Between three and four weeks later she noticed sores upon her nipple. As the infant, on account of an eruption, appeared to her to be of doubtful health, she sent it back, and shortly thereafter it died. On account of her own failing health, and more especially on account of the state of her child, which became affected with a sore tongue and with eruptions upon its skin, she sought assistance at the hospital. The positive proofs of the view that indurations must be looked upon as the seats of initial lesion, drawn from observation of the facts themselves, were as follows:

1. The condition of the lip and nipple, presenting the following conditions characteristic of the initial lesion of syphilis:

a. The consistence of a gumma of a medium degree of hardness.

b. The sclerosed mass deeply situated in the subcutaneous tissue, so that it is almost impossible to perceive any prominence of the induration over the level of the normal tissue by which it is surrounded. By this last condition it is distinguished from the broad condyloma, which, caused by a hypertrophy of the papillæ, always elevates itself more or less above the normal tissue about it.

c. A sharply-defined line between the induration and the surrounding normal tissue. By this means the diagnosis between the induration of a phlegmonous inflammation and that of syphilis can be made.

d. The characteristic dark-brown coloration.

2. The negative proof—*i.e.*, the total absence of any initial lesions upon the genitals, upon which could not be found any erosion, ulceration, or even scars or pigmented patches—goes far to strengthen the diagnosis.

3. The characteristic course of the implication of the glands. Instead of indolent swellings in the glands of the groin, these are noticed as being but little if at all affected, while those of the parts in which the infection took place are found much swollen and indurated. In the patient with the induration upon the lip, not only was the submental gland enlarged, but also the lymphatic gland situated under the angle of the jaw on the left side; the deeper glands also with which those of the face communicate, as well as those of the parotid region, showed marks of the same action.

In the second patient, in whom the initial lesion was on the nipple, numerous glands belonging to the lymphatic plexus of the axilla were found in the same condition, also scattered ones under the edge of the pectoralis major muscle, enlarged to the size of a duck's egg.

When the children of the two women were examined, they were found to be in the following condition: The one, the son of the unmarried woman, infected in the seventh month of her pregnancy, and at the time of examination three months of age, had been born two or three weeks prematurely, and presented the following symptoms: 1. General emaciation and weakness. 2. Swelling of the inguinal, cervical, and occipital glands, in varying degrees. 3. Traces of an eruption maculated and papular in its character. 4. Induration of the right testicle. 5. A symmetrical inflammation of the subcutaneous tissues on both legs on both sides of the tibia. In the second child, a boy aged thirteen months, who was born from a healthy mother, and who acquired syphilis at the age of eight months from the nipple of his mother, the following symptoms presented themselves: 1. A sharply-defined eroded induration on the left side of the point of the tongue, possessing the marks which have been already given as characteristic of an initial induration. 2. Swelling of the glands in the left submental and submaxillary regions. 3. An eruption maculated and papular in its character. Among the numerous conclusions that could be drawn from these facts, the following were brought prominently forward, but some of them only go to support observations already made: 1. That a true syphilitic infection can take place on any part of the skin or mucous membrane. This view of the possibility of infection without coitus was strongly combated by Ricord, who was often very satirical at the expense of those who made the exact observations by which the facts were established, particularly in the case of Waller of Prague. 2. That children born of mothers who have been infected in the latter months of gestation, as in this case in the seventh month, can be born with the so-called tertiary affections, to which class belongs the orchitis. The possibility that healthy children can be born under these conditions is not denied; but this case proves that the offspring of such mothers is not always healthy, as has been asserted by numerous authors. The pathological conditions found in this form of orchitis from congenital syphilis would be of interest and importance; but, so far as is known to Professor Lewin, the subject has not been investigated. Whether the condition of the skin upon the legs should have been looked upon as an integral part of the manifestations or not, was not

dwelt upon by the lecturer. 3. That we must receive with caution the view of numerous authors, who assert that in the greater number of children born with syphilis the disease is inherited only from the father, because the most accurate examination fails to reveal any trace of previous sores upon the genitals of the mother. The case of the girl with the primary affection upon the lips was a striking illustration of this, for there was nothing noticed on her genitals; even the glands of the groin and crural region gave no room for suspicion; attention was only called by the swollen condition of the submental gland of the left side, to the flat induration upon the lips, which was already skinned over and lay deep in the surrounding healthy tissues. 4. That women with so-called secondary syphilis can give birth to offspring suffering from so-called tertiary symptoms, the pathological conditions corresponding to which belong to a much more advanced step of the disease. This view, upon which doubt has been cast by many authors, is sufficiently proved by this case. 5. That the symptoms caused by hereditary syphilis present a greater intensity than those of the same disease acquired after birth: the child infected after birth has a stronger constitution, and is affected with rashes of the skin and mucous membranes; the second, with hereditary syphilis, in addition to a weakly constitution, suffers from organic degeneration which must be classed with the so-called tertiary manifestations.

TUBERCULOSIS OF THE LYMPHATICS.

By L. Thaon. Translated from *Le Mouvement Médical*, May 17, 1873.

TUBERCULOSIS of the lymphatic vessels is observed under a number of circumstances, which we will enumerate and analyze.

1. It is frequently found during the tuberculous inflammations of the strumous. The diseased lymphatics may then be seen under the microscope to be wholly superficial, lying almost under the epithelium or showing plainly in the sub-serous tissue. Klebs has experimentally produced on animals these tuberculous lesions of the peritoneal lymphatics, and has made histological studies of them with the aid of injections of silver.

2. In tuberculosis of the intestine, when the ulceration reaches a certain depth, nothing is more common than to see lymphatics, knotted, interlaced, and bleached, forming a net-work in the visceral peritoneum corresponding to the ulceration; thence they return to the glands which lie in the adherent border of the intestine, and pursue their course in the mesentery to be lost in the mesenteric glands. In one case of intestinal tuberculosis we have seen a lymphatic resembling a white, twisted cord, leaving an ulcer of the mucous membrane, and making a marked prominence for some distance before penetrating to the deeper layers.

3. In the diaphragm we have likewise seen numerous lymphatics invaded by tuberculosis during the course of a tuberculous diaphragmatic pleurisy. M. Lépine has pointed out the central tendon of the diaphragm as frequently the seat of tuberculous granulations. Now, at this point, according to Schweigger-Seidell, there exists between the tendinous fibres a tissue analogous to the reticulated glandular tissue. It would be interesting to know how tubercle is developed in this, and whether it undergoes the same evolution as in the glands.

4. We have said previously, when speaking of fibrous granulations of the lung, that Rindfleisch considered them the result of a lymphangeitis; we have denied the correctness of this view, and we confess that, to our great astonishment, we have never been able to observe anything in pulmonary phthisis which could be attributed to the lymphatics.

5. In a tuberculous testicle we have once discovered a large lymphatic filled with degenerated elements. It is, moreover, highly probable that the majority of granulations of the testicle arise at the expense of the epithelial cells which line the lymphatic spaces described by Ludwig, around the spermatic ducts.

We thus explained the appearance of a curious specimen presented to the Anatomical Society in 1872 by M. Reclus. It consisted of a testicle larger than a hen's egg, of a whitish color, composed of a series of cords some of which were almost one millimetre in diameter.

6. In two cases of tuberculosis of the female genitals we have observed a number of lymphatics similar to those of the mesentery in tuberculosis of the intestines. These lymphatics formed net-works under the serous membrane which covers the posterior face of the uterus and the wings of the broad ligament.

7. In the brain the granulations are developed in the lymphatic peri-vascular sheath, which we know to be the equivalent of the lymphatic vessels of other organs.

To sum up, the lymphatics play an important rôle in tuberculosis. Sometimes they are limited to serving as canals for the transportation of the infecting materials which go to the glands; at other times they themselves take part in the tuberculosis, constituting *tuberculous lymphangeitis* mixed with *granulations*. These lesions may easily be studied on specimens hardened with Müller's solution, gum, alcohol, and on sections colored with picro-carminate of ammonia. They are very exactly described in the manual of MM. Ranvier and Cornil (p. 582): "In the first stage the lymphatic vessels are filled with white globules and with cells of various forms proceeding from the vascular epithelium; the walls of the latter and the adjoining connective tissue are to a great extent filled with embryonic cells. In the second stage the cells collected in the walls of the lymphatics and in the connective tissue form, with the cellular contents of the vessels, a nodule having all the characters of a tuberculous granulation. These nodules placed in the track of the lymphatics are more or less distant from each other, and have been in many cases confounded with granulations arising from the connective tissue." Let us add that nearly all this work of proliferation is done at the expense of the lymphatic endothelium, and that we are occupied with a veritable caseous endo-lymphangeitis mixed with granulations.

Cutaneous Absorption of Poisons.—In a recent note to the Paris Academy, M. Bernard describes a series of experiments for the purpose of testing the degree of cutaneous absorption which took place in a bath impregnated with the substances to be tested. Every precaution was taken to prevent the possibility of the substances entering the system of the patient by any avenue except the skin. He was then submitted for a short time to steam vapor charged with iodide of potassium, and two or three hours afterwards the urine gave unmistakable evidence that the iodide had been absorbed and was passing through the system.

In these experiments the medicinal agent reached the skin in hot aqueous vapor, and therefore acted more readily than an ordinary cold solution; but the fact of cutaneous absorption was very definitely illustrated. M. Bernard adds,—

"M. Colin has described an experiment in which he allowed water charged with cyanide of potassium to fall for five hours on a horse's back. This caused the death of the animal; the sebaceous (fatty) matter having been destroyed through percussion, and cutaneous absorption taking place."

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SATURDAY, AUGUST 16, 1873.

EDITORIAL.

SPLINTS.

IN a recent admirable article in the *Popular Science Monthly*, Mr. Herbert Spencer attempts to explain the persistence of the mechanic arts among rude peoples, by comparing the products of their labor with some of the thoughtless repetitions of imperfect models so common among the workmen of to-day. We can all testify to the intractableness of the American mechanic, particularly of him who is the power in the cutler's shop. Liberal wages have had little effect, apparently, in stimulating his inventive powers or inducing him to carry out the conceptions of the practitioner who may employ him, and the surgeon is often compelled to devise the patterns of his instruments, leaving to the artisan merely the work of giving them durable shapes. Mr. Spencer could not complain of exact adaptation of means to end in this branch of industry. Unfortunately, the motive of the inventor is often to fix his name to an apparatus, rather than to improve a method of treatment. Jones is no longer satisfied with Brown's modification of Smith's splint; so he writes a paper asserting the value of a certain hook or screw, and counts the result as fame,—often neglectful of the fact that some other worthy had better described the same point long before.

The average mind is surprisingly fertile on the subject of splints. This was exemplified at a recent meeting of the American Medical Association. The session of the surgical section had been unwontedly dull, until a member began to discuss the treatment of fracture, when it was discovered that there were present many gentlemen who were authorities on the subject. An incontinent discussion ensued on the comparative merits of splints of starch, wood, wire, paper, glass, and plaster, until the gavel of an exhausted chairman checked it in order that the business of the section might proceed. It has been said of the author of a single book that he was the publishers' measles, since they had had him but once. Many surgeons would appear to believe that they *must* invent a splint, at least once; but, as a prophylactic in such cases, we would commend the perusal of a paper by Dr. Edward Hartshorne in a recent volume of the *American Journal of the Medical Sciences*, on the bibliography of the treatment of fractures of the femur by extension. Let them ponder and be wise.

The effect of this over-inventiveness is to give an unscholarly tone to an important department of medical literature, to say nothing of the minor evil of encumbering the practitioner's office with apparatus about as useful as the ends and fragments depicted in Hogarth's "Finis." All credit to those who contribute to our stock of improved appliances; but candidates for such regard should be sure of the justice of their claims before placing them on record.

THE WILLS HOSPITAL.

THIS useful charity is dispensing its benefits to an annually increasing number of patients. It is stated in the report for 1872, recently issued, that during the year there were treated 362 in-patients and 2514 out-patients, and that 628 operations were performed.

This hospital was opened in 1834, through the liberality of James Wills, "for the sole use of the indigent blind and lame," and, in accordance with the express terms of his will founding the institution, it was denominated "*The Wills Hospital for the Relief of the Indigent Blind and Lame.*" From the report for 1872 it appears that the title has been changed—by what authority we know not—to *Wills Ophthalmic Hospital*, from which we infer that the lame are hereafter to be excluded from the benefits of the institution,—an inference strengthened by the fact that no cases of lameness are reported to have been treated at the hospital during the past year.

That the lame of Philadelphia need hospital accommodation is proved by the large number who are annually treated at the Orthopædic Hospital, an institution whose recent foundation may have

been rendered necessary by the non-treatment of orthopædic cases at the Wills Hospital.

We have no doubt that the funds dedicated to the hospital are well administered; but there are so many questions, legal and otherwise, connected with the management of charitable bequests, that it would seem only prudent for those concerned to obey the letter as well as the spirit of the testator's wishes.

IT is not often that rogues disgorge ill-gotten plunder. It is stated, however, by the London *Times* that Dr. Holloway, of pill and ointment fame, is devoting the enormous sum of 350,000 pounds sterling to the erection of lunatic and other hospitals. It is well to undo, as far as possible, what is wrongly done. But, before we praise the munificence of this patent-medicine vendor, we would like to know how much he retains of the money wrung from misery by false hopes and promises. As the world goes, we suppose, however, Dr. Holloway will reap his reward. The man who gulls the multitude in so royal a manner must be smart, though he be unprincipled; and successful smartness is the talisman to outward homage. After all, however, the doctor must know that he is but a "quack doctor," and that the men who bow before him know it also.

THE South of France does not appear to be a paradise for careless pharmaciens, as is shown by the account of a recent transaction given in the *Bulletin Commercial de l' Union Pharmaceutique* for June. It seems two ladies were poisoned by stramonium given for saponaria by an apprentice. Although they recovered without serious consequences, the *ministère publique* censured the unfortunate apothecary in very severe terms, and the police court sentenced him to a fine of two hundred francs. Worse still, the two ladies have sued for damages to the extent of twenty thousand francs. As they promise to give the money to charities, supposing that French juries are like those of America, the apothecary, if he be rich, had better compromise the civil suit.

TEST FOR IMPURITIES IN WATER.—An English technical periodical says, "Good water should be free from color, unpleasant odor and taste, and should quickly afford a lather with a small portion of soap. If half a pint of the water be placed in a perfectly clean colorless glass-stoppered bottle, a few grains of the best lump white sugar added, and the bottle freely exposed to the daylight in the window of a warm room, the liquid should not become turbid, even after exposure for a week or ten days. If the water become turbid, it is open to the grave suspicion of sewage-contamination; but if it remain clear, it is almost certainly safe. We owe to Heisch this simple, valuable, but hitherto strangely neglected test."

REVIEWS AND BOOK NOTICES.

THE LOCAL USE OF TAR AND ITS DERIVATIVES, INCLUDING CARBOLIC ACID, IN THE TREATMENT OF SKIN DISEASE. By L. D. BULKLEY, A.M., M.D., Physician to the New York Dispensary for Cutaneous Diseases. Reprinted from Dr. Brown-Séquard's Archives of Scientific and Practical Medicine, April, 1873. J. B. Lippincott & Co., New York and Philadelphia. Pamphlet, pp. 25.

In this little pamphlet, which is a welcome contribution to the therapeutics of diseases of the skin, the practitioner will find much useful information which has hitherto been scattered through journals and special works on dermatology.

Dr. Bulkley gives a concise account of the different varieties of wood tar, the pix liquida of the U. S. P., ol. picis, ol. cadini, ol. rusci, and ol. fagi; as well as their source, their preparations, and their application. Then, after devoting a few pages to their therapeutical indications, he goes on to speak of their derivatives—pyroligneous acid, acetic acid, creasote, pitch, turpentine, resin, and resineon—in the same manner. Giving a brief notice of the uses of coal tar, he goes into a consideration of its derivatives, carbolic acid and petroleum, the former at some length.

Dr. Bulkley shows the beneficial effect of the use of tar and its derivatives in the later and less acute stages of eczema, as well as in psoriasis, prurigo, and the various parasitic skin affections. He very properly suggests withholding these preparations in the acute stage of eczema, at which period their incautious use has frequently resulted in marked aggravation of the inflammatory symptoms.

The occasional want of toleration which is shown by some skins towards these preparations is alluded to; a fact worthy to be remembered, in order that where a large extent of surface is involved in disease, an experiment may first be made on a small portion of the skin before the more general use of the application.

Dr. Bulkley introduces to the notice of the profession a preparation which he has named "liquor picis alkalinus," being essentially a watery solution of tar by means of caustic potash. This solution is said to have been used with advantage in the various stages of eczema, in psoriasis, and in lupus erythematosus: it certainly seems worth a more general trial.

On one point we must be allowed to enter a mild protest, and that is against the use of the word "petroleum" to indicate the fluid usually sold for illuminating purposes and generally known as "kerosene." The term "petroleum" is properly applied to the crude product drawn from the oil-wells of Pennsylvania and other localities, from which most of the "kerosene" or "coal oil" of commerce is derived by a process of distillation.

A. V. H.

BODY AND MIND: an Inquiry into their Connection and Mutual Influence, especially in Reference to Mental Disorders. A New and Revised Edition, to which are added PSYCHOLOGICAL ESSAYS. By HENRY MAUDSLEY, M.D., Professor of Medical Jurisprudence in University College, London. London, Macmillan & Co., 1873.

In this new edition of a well-known book the changes consist in the introduction of essays on "Conscience and Organization," on "Hamlet," and on "Swedenborg;" and we must confess that the additions strike us as being even more interesting and instructive than the original Gulstonian lectures on "Body and Mind," which form the *pièce de résistance* of the work. We would not like to be forced to choose between the stake and the full acceptance of Dr. Maudsley's doctrines; but, so long as

variety may be enjoyed without suffering, we will continue to derive pleasure both from our own opinions and the highly suggestive papers of the learned professor.

The essay upon Conscience and Organization is an extremely important one, and certainly shows most clearly what we suppose no medical thinker will deny, that wickedness—moral insanity, if you choose—is very often dependent upon an improperly organized brain; but this does not prove that it is always so, much less that conscience is simply the product of organization. The most skilful musician will produce discords if his instrument is out of tune; and if there be such an entity as a *spirit* in man, the manifestations of that spirit must be influenced by the disorders of the system through which it acts. Ergo, the having proved that a physical derangement affects or disturbs the workings of conscience is, by itself, no step towards proving that conscience has not a distinct spiritual existence; and just at this point on which the materialistic argument breaks is the chasm which separates the scientifically knowable from the scientifically unknowable.

Swedenborg our author shows to have been a madman, with a streak of genius in his insanity, and a tinge of obscenity borrowed from remembrances of the companions in dalliance with whom he spent the leisure hours of his youth and middle age. If, as his followers assert, he drank deeply of spiritual joys, he certainly reserved them until, for him, the fountains of carnal pleasure were exhausted.

We have often wondered for what object many book notices are written, and have concluded that it is frequently to fill up the columns of a journal, to gratify personal spite, or to contrast the profundity of the critic with the author's lack of wisdom. We conceive, however, that the proper motive, the originating reason, so to speak, should, in a journal like this, be duplex,—to express an opinion as to the merits of the work, and to enable readers to determine whether they do or do not desire to purchase it.

We commend this book, then, as the functional excretion of a delicately organized cerebrum, whose cell-structure has evidently been improved by high culture. As to buying it, reader, if you belong to that class of miserable mortals who see nothing more in our profession than a philosopher's stone by which the transmutation of nauseous drugs into wholesome bread and butter may be accomplished, you need not buy this book. If you want to be more than this,—a thinking, reasoning representative of the highest science, that which deals with humanity,—buy the book, or at least read it. Understood aright, it will widen your thought, deepen your sympathy, and increase that reverent humility which the true man of science always feels when he approaches the boundaries between the finite and the infinite.

GLEANINGS FROM OUR EXCHANGES.

Physiology of the Biliary Secretion.—Röhrig contributes a paper on this subject to the last part of Stricker's *Medizinische Jahrbücher* (Heft ii., 1873). His experiments were conducted on dogs and rabbits fully under the influence of curara. A bent-glass tube was inserted into the ductus communis choledochus in a large curarized rabbit, in which artificial respiration was maintained. He obtained, at the commencement of an experiment lasting about half an hour, one drop of bile every eight seconds, but at the close only one drop in every seventeen seconds. The last-secreted bile was more intense in color than the first, and was more glutinous. Compression of the vena portæ, or of the hepatic artery, or of both together, caused an immediate diminution of the quantity of the secretion, but after some time, though the compression was continued, the liver recovered its activity to some extent. A rabbit which yielded one drop of bile in about twenty-four seconds before compression only yielded one drop of bile per seventy seconds after; and a dog previously giving one drop in thirty seconds only gave one per eighty or ninety seconds after compression. Ligation of the thoracic aorta just above the diaphragm reduced the secretion in a dog from one drop in seven seconds to one in fifty. Ligation below the cœliac axis raised the rapidity of the secretion from one drop in eight seconds to one drop in three seconds in a rabbit. Compression of the vena cava ascendens, so as not completely to arrest the flow of blood, caused steady diminution of the flow of bile from one drop in five seconds to one drop in thirty-two seconds. On releasing the vein it again steadily rose to one drop in four seconds. The opposite effects obtained from ligature of the venæ cavæ and compression of the aorta demonstrate, Röhrig thinks, that the formation of the biliary secretion is not exclusively dependent upon the degree of pressure in the capillaries, but rather upon the current and quality of the blood. Injection of water into the intestinal canal increases the biliary secretion, and to a greater extent than the injection of the same quantity into the blood-vessels. Irritation of the mucous membrane of the intestinal canal in various parts from the mouth to the anus, as well as of the peritoneum, was not attended with any very definite results. Digestion always increased the quantity secreted considerably, and when the partially digested contents of one dog's stomach were injected into that of another, the quantity of bile began to rise rapidly in ten minutes. Croton oil, colocynth, jalap, aloes, rhubarb, senna, sulphate of magnesia, calomel, and castor-oil, all increase the flow of bile; the two latter, however, only feebly, the first two vigorously. Section of the splanchnic nerve caused increase of the biliary secretion; neither section nor irritation of the vagi sympathetici had any influence on the amount. Division of the spinal cord was followed first by increase and then by retardation of the flow. Indirect irritation of the spinal cord by electricity prolonged the periods between the drops. Suspension of the respiration was variable in its action, but, as a rule, retarded the secretion. Opium rather increased the flow of bile by its paralyzing influence on the peripheric vessels; it checked diarrhœa by its action on the peristaltic movements.

Treatment of Chilblain by Electricity.—Dr. Santopadre makes known, in *Gaz. Med. de Provincie Venete*, a means which he has employed with success for the treatment of chilblain,—namely, electricity. He makes use of Gaiffe's electro-magnetic apparatus, and of a current of middling intensity. The positive pole is placed in the neighborhood of, and a little above, the inflamed spot, and the negative pole to the inflamed spot itself. The sitting lasts about ten or fifteen minutes, and is repeated if necessary the following day. Generally after the very first sitting the itching ceases and the pain is much abated. After the third or fourth sitting recovery is complete.

Contribution to the Pathological Anatomy and Physiology of Urinary Tumors and Abscesses.—In a communication to *Le Mouvement Médical*, M. Henri Dransart, *interne* of the Paris hospitals, gives the following propositions as the results of his clinical observations and dissections:

1. Chronic blennorrhagia produces a sclerosis or cirrhosis of the urethral spongy tissue.

2. Sclerosis of the spongy tissue results in the disappearance of the cavities, and in a new vascular forma-

tion like that seen in cirrhosis of the liver or of the lung; the vessels are less numerous, of small calibre, and have young and feeble walls.

3. There occur in the submucous tissue hemorrhages whose mechanism is explained on the one hand by the function of the organ,—coitus and other acts,—and on the other by the nature of the newly-formed vessels which nourish the fibrous tissue.

4. These hemorrhages are the origin of a large number of the tumors and urinary abscesses which occur during the existence of strictures. We can easily conceive that they may be very slight and occasion merely phenomena of engorgement in the substance of the submucous tissue of the urethra.

He states that Chopart was familiar with this cirrhosis or fibrous degeneration of the spongy tissue, and designated it as "scirrhous degeneration," a difference merely in the name. M. Voillemier has pointed out the occurrence of hemorrhages in the new tissue, but has not sought to explain their originating cause, which lies in the nature of the vessels replacing the primitive vascular apparatus. The development of new branches of the bronchial and hepatic arteries in cirrhosis of the liver and lungs enters to-day into the crudest notions of pathological anatomy; and this science has also taught us that vessels of a new formation usually have feeble walls. These facts being known and applied to the urethra, whose special functions are understood, hemorrhages and the tumors and abscesses which are their sequelæ might be reasonably anticipated.

M. Trélat on the Operations for Phimosis.—M. Trélat, Professor of Surgical Pathology at the School of Medicine, and Surgeon to the Hôpital La Charité, lately delivered a very interesting lecture on the treatment of phimosis. He premised his lecture by a few remarks on the etiology, or rather the pathology, of phimosis, which, he stated, consists of two forms,—the congenital and accidental. It may be also complete or incomplete. In the former, the preputial orifice is so contracted as to prevent the free passage of the urine, or the phimosis, without extending to that degree, may just be sufficient to prevent the uncovering of the glans, and thus favor the accumulation of the secretions, constituting the condition termed balanitis; or, when the prepuce is forcibly drawn back over the glans, it produces paraphimosis. For both forms of phimosis operative measures hold out the only chance of cure. For the congenital form, forced dilatation, as recommended and practised by Nélaton, may be useful, but for that produced by disease it is out of the question. In either case M. Trélat prefers the radical cure, by circumcising or slitting up the prepuce, as he considers the dilatation plan as being not only a most awkward operation, but one which affords only temporary relief, after which relapses almost invariably occur, and which is frequently followed by paraphimosis. As the best proof that can be given of the necessity of an operation, M. Trélat stated that he has known old men who, after having borne the complaint for years, were obliged at last to submit to an operation. He had operated on three old men, aged respectively 63, 64, and 67. The prepuce of the last subject had a most unnatural appearance, as it had become hard and gristly, and considerably hypertrophied, and when this portion of the prepuce was removed by circumcision it was impossible to bring the skin and mucous lining together, and the wound in consequence was more than two months in healing. At what age may phimosis be operated on? is a question often asked; and M. Trélat thinks that there are three periods at which the operation may be conveniently performed, viz., from three to seven, from eighteen to twenty-five, and then in old men who are the subject of chronic balanitis. In children it is best to defer the operation as long as possible,—unless the phimosis is attended with great inconvenience, such as the accumulation of urine between the glans and foreskin, and consequent balanitis, or if the young subject is given to masturbation,—as the difficulty of the operation consists in the keeping the two cut edges in apposition. M. Trélat performs circumcision when the phimosis is simple, that is, when there is simple prolongation of the foreskin, accompanied with only slight contraction of the orifice; but when the phimosis is attended with the inconveniences mentioned above, he adopts the slitting plan; and, if the prepuce is long and thickened, he snips off the two ends that overhang each side. In this operation M. Trélat remarked that the foreskin should be slit well up to the corona glandis, otherwise the phimosis remains uncured, and after a time the patient comes back justly dissatisfied with the surgeon and demands a renewal of the operation. The incisions made, he applies a certain number of serrefines (from ten to fifteen), which he prefers to sutures: they, however, should be kept on for only a short time. In general, he removes them at the end of twenty-four hours, for if kept longer they are liable to produce sphacelus. —*Irish Hospital Gazette*, July 15, 1873.

Homœopathic Pilules (*The Practitioner*, July, 1873).—The most careful chemical analyses have failed to demonstrate the presence of either aconite, atropia, or belladonna in pilules which professedly contained in one hundred parts one part by weight of the drug. Comparative experiments showed that $\frac{1}{8000}$ of a grain of aconite would have been detected with certainty. This corresponds to about $\frac{1}{160}$ of a grain of the extract of aconite; while the quantity which should have been present is from $\frac{4}{5}$ to nearly one grain, or more than one hundred times more. Similarly, $\frac{1}{6000}$ of a grain of atropia would have been discovered,—twenty-four times as much was supposed to exist in the preparation.

We would certainly be obliged to place cures, should there be any following the use of such pilules, entirely to the credit of the imagination.

Injections of Alcohol into Fatty Tumors (*Medical Press and Circular*, May 21, 1873).—Dr. Hasse, of Nordhausen, recommends the injection of alcohol into the substance of adipose or lipomatous tumors. He gives one case of a female who had a large fatty tumor reaching from the shoulder to the armpit. He injected alcohol into this at four different sittings, with fifteen days' interval, directing the syringe into different parts of the tumor. In a few days there was some slight inflammation. The tumor at first became firmer, but soon softened and fluctuated at several points. In three weeks an incision was made, and the fatty matter could be pressed out in a liquid form. In another case, of a man aged forty, similar treatment was adopted, with a similar result.

Temperature in Epilepsy and Hysteria (*Le Mouvement Médical*, No. 11).—Dr. Bourneville states that he has satisfied himself, from observations taken in the Salpétrière and St. Louis Hospitals, that during an attack of epilepsy the temperature augments; so also in attacks of epileptiform hysteria the temperature rises. On the contrary, in pure hysteria there does not appear to be any increase. He thinks that by this means it is possible to distinguish an attack of true from one of feigned epilepsy. When the disease is simulated, the attacks are always the most severe possible, yet the temperature does not rise above the physiological degree; but when the real attacks are severe, the temperature not only rises during the fit, but remains above the normal for several hours.

MISCELLANY.

Obscene Literature.—The following extract from a letter, dated January, 1873, by Mr. Anthony Comstock, of Brooklyn, to Hon. Clinton L. Merriam, shows that the law recently passed by Congress is doing good. Mr. Comstock says,—

"These I have seized and destroyed: Obscene photographs, stereoscopic and other pictures, more than 182,000; obscene books and pamphlets, more than five tons; obscene letter-press in sheets, more than two tons; sheets of impure songs, catalogues, handbills, etc., more than 21,000; obscene microscopic watch- and knife-charms and finger-rings, more than 5000; obscene negative plates for printing photographs and stereoscopic views, about 625; obscene engraved steel and copper plates, 350; obscene lithographic stones destroyed, 20; obscene wood-cut engravings, more than 500; stereotype plates for printing obscene books, more than five tons; obscene transparent playing-cards, 5500 to 6000; obscene and immoral rubber articles, over 30,000; lead moulds for manufacturing rubber goods, twelve sets, or more than 700 pounds; newspapers seized, about 4600; letters from all parts of the country, ordering these goods, about 15,000; names of dealers in account-books seized, about 6000; arrests of dealers since October 9, 1871, over 50; publishers, manufacturers, and dealers dead since March last, 6.

"There are various ways by which this vile stuff has been disseminated. First, by advertising in the above-named papers. Some weeks there is not a single advertisement in some of the papers that is not designed either to cheat or defraud, or intended to be a medium of sending out these accursed books and articles. For instance, I have arrested a number of persons, one in particular, who advertised a musical album, to be sent for fifty cents. I sent the fifty cents, and received back a catalogue of obscene books, with the following card attached:

"'The album is only a pretence to enable us to forward you a catalogue of our fancy books. Should you order any of these books, your fifty cents will be credited.'

"It is needless to say, I ordered, then arrested him, locked him up in the New Haven jail, and he has been indicted by the grand jury in the United States Court of Connecticut, and now is held on bail for trial. In the same way, by advertising beautiful views or pictures of some celebrated place or person, these men receive answers from innocent persons for these pictures, and among the pictures sent will be one or more of these obscene pictures, and catalogues of these vile books and rubber goods. For be it known that wherever these books go, or catalogues of these books, there you will ever find, as almost indispensable, a complete list of rubber articles for masturbation or for the professed prevention of conception."

Practice and Pregnancy.—A rather amusing story is current just now about a Mrs. Anderson, which serves to illustrate the ground of English prejudice to feminine invasion of male pursuits. Mrs. Anderson has been married now for about two years, and, as she is a person of some note, socially and professionally, she is much talked about. It was lately very generally reported that she was likely soon to be a mother. For some reason, she seemed to think that such a report ought not to be allowed to pass uncontradicted, and she has adopted the remarkable step of writing to a physician, who was one of those who had repeated the rumor, denying its accuracy, and requesting that he would take proper occasion of contradicting a statement which was likely to be injurious to her practice. This seemed to me incredible, but it has been confirmed as a fact; and the notion that a married woman should think it due to herself to contradict the statement that she was *enceinte*, has a sad and serious as well as a ludicrous side of it, to those who think that the highest ambition of any woman is to become a mother, and that the greatest misfortune which can happen to her is to fail in that high mission and noble ambition of womanhood and wifehood.—*London Letter to Boston Journal.*

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JULY 29, 1873, TO AUGUST 11, 1873, INCLUSIVE.

Simons, J., Surgeon and Medical Director.—Granted leave of absence for thirty days, with permission to apply for an extension of thirty days. S. O. 124, Department of the Gulf, July 28, 1873.

Frantz, J. H., Surgeon.—Leave of absence extended from July 20, 1873, seventy days, on Surgeon's certificate of disability. S. O. 153, A. G. O., July 29, 1873.

Webster, Warren, Surgeon.—Granted leave of absence for thirty days. S. O. 143, Department of the East, July 28, 1873.

Knickerbocker, B., Assistant-Surgeon.—Leave of absence granted by S. O. 88, Department of the Columbia, July 15, 1873, extended thirty days. S. O. 135, Military Division of the Pacific, July 23, 1873.

Cleary, P. J. A., Assistant-Surgeon.—Assigned to duty at Fort Griffin, Texas. S. O. 139, Department of Texas, July 25, 1873.

Munn, C., Assistant-Surgeon.—Assigned to temporary duty at Fort Independence, Boston Harbor, and to return to his proper station (Fort Adams, R. I.) when Surgeon Webster reports from his leave. S. O. 143, c. s., Department of the East.

Simpson, John, Surgeon.—Granted leave of absence for three months, on Surgeon's certificate of disability. S. O. 163, A. G. O., August 9, 1873.

Simons, J., Surgeon and Medical Director.—Leave of absence extended thirty days. S. O. 45, Military Division of the South, August 5, 1873.

Alexander, C. T., Surgeon.—Granted leave of absence for thirty days. S. O. 162, A. G. O., August 8, 1873.

Wolverton, W. D., Assistant-Surgeon.—Relieved from duty in Department of Dakota, to proceed to New York City, and, on arrival, report by letter to the Surgeon-General. S. O. 158, A. G. O., August 2, 1873.

Smart, Charles, Assistant-Surgeon. — Assigned to duty at Fort Bridger, Wyoming Territory. S. O. 129, Department of the Platte, August 5, 1873.

Cleary, P. J. A., Assistant-Surgeon.—Relieved from duty in Department of Texas, and to proceed to New York City, and, on arrival, report by letter to the Surgeon-General. S. O. 160, A. G. O., August 6, 1873.

Wiggin, A. W., Assistant-Surgeon.—Granted leave of absence for thirty days, with permission to leave limits of Department and apply for an extension of thirty days. S. O. 95, Department of the Columbia, July 28, 1873.

PHILADELPHIA MEDICAL TIMES.

SATURDAY, AUGUST 23, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON THE RELATION WHICH FAULTY CLOSET-ACCOMMODATIONS BEAR TO THE DISEASES OF WOMEN.

BY WILLIAM GOODELL, M.D.,

Physician-in-Charge of the Preston Retreat; Clinical Lecturer on the Diseases of Women and Children in the University of Pennsylvania, etc.

"THE sublime," writes the great Burke, "is an idea belonging to self-preservation." Emboldened by this definition, I shall offer no apology for addressing you this morning upon an unsavory subject. For it is one—as I hope to prove—closely allied to the moral and physical well-being of the mothers and daughters of this land, to the vigor of their offspring, and, as a consequence, to the health and happiness of the community, and to the strength of the state.

The important question of sewage- and cesspool-diseases, which is now agitating political economists, has a range far wider than those branches of medicine on which I lecture. I shall, however, limit my remarks to that aspect of it which directly concerns the good health, and more remotely the good morals, of women,—viz., *the relation which faulty closet-accommodations bear to the diseases of women.*

In adults the state of health denotes a state of equilibrium between waste and repair,—between construction and destruction. But the statical condition is one necessarily disturbed by the smallest casting-weight. Hence very slight indeed may be the cause which deranges the nicely-balanced relation between the functions of the various organs of the body. Thus, by the imperfect and unpunctual performance of the excretory functions, our food becomes our poison. The lengthened detention of fæces in the bowels, or of the urine in the bladder, begets a host of disorders, in man as well as in woman. But it is in the latter that they are most manifest. Irregularity or postponement in the evacuations of the body is perhaps the most common cause of uterine and pelvic diseases. For not only are local congestions produced mechanically by the irritation or the pressure from hardened fæces, and flexions of the womb brought about by the straining efforts to empty the bowels; but the intimate interdependence between the pelvic and the uterine plexus of veins on the one hand, and the portal system on the other, is at the root of all manner of female complaints. A congestion in the one determines in the other a like condition, which in turn confirms and augments the disorder of the former. It is, indeed, astonishing how quickly a woman's health declines from inattention to habits of regularity.

Over-distention of the bladder, by drawing up the cervix and by thrusting the fundus backward, is undoubtedly a very common factor in the production of retroflexions and retroversions of the womb. Almost every acute case of uterine displacement and many cases of vesical catarrh are thus brought about. The very worst case of irritable bladder that I ever met with occurred in a lady who, thirty years previously, had travelled a whole day in a stage-coach without finding a fit opportunity for passing her water.

Again, costiveness is the recognized cause not only of hemorrhoids, of pelvic and uterine congestions, and of disorders of the digestive apparatus, but also of fæcal poisoning. For if diseases breed from bad drainage and defective sewerage from without the body, how much more from bad drainage and defective sewerage within the body! Excretions retained in the body ferment and decompose; the pestilential gases thus generated, and the products of tissue-waste, being resorbed, degrade the blood, disable nerve-centres, and paralyze the action of vital organs. A mischievous reciprocation takes place, by which the cause and its effects aid and abet one another. Take for instance the liver: costiveness makes it secrete less bile, and this torpidity not only causes a uterine congestion, but also reinforces the habit of constipation. So, in a measure, with every other organ: blood-disorder leads to morbid nutrition of nerve-centres, and this in turn still further degrades the blood. Thus is evoked that exaltation of nervous action which so often becomes turbulent and uncontrollable. Hysteria, chlorosis, and climacteric perturbations are always linked with defective hæmatosis.

Except as the result of this vicious circle, how else explain the proverbially bad health of women living in the country, and of the poorer classes of women in cities? Show me such a woman, and you show me a costive creature, one whose whole life is spent in an unnatural struggle with the lower but needful calls of her body. This evil is in itself bad enough; but, unfortunately, it does not end there. Upon the good health of the mother depends the good health of the child. Feeble mothers beget feeble children,—children who are carried from the womb to the grave, or who peak and pine under the heritage of ill health.

Such, then, being the condition of the majority of American women, what is the cause? "Probably no single cause," writes a close observer, "has had so much influence in producing the peculiarly delicate condition for which women living in the country and in the small towns in America are notorious, as the discomfort, inconvenience, and frequent repulsiveness [and, I may add, indecent exposure] of their closet-accommodations."

The ancients, who were wiser in their generation than we in ours, set examples which we in the nineteenth century might in some respects usefully follow. The cloacæ of Rome are still the admiration of the architect. They were built so firmly as to have resisted the impetuous torrents of over seven hundred winters. To keep them in repair, public officers were appointed, who were called the *curatores cloacarum urbis.* Even a goddess—the fair Cloacina—was chosen to preside over them. But with us how different!

In the teeming tenement-house of any of our large cities there is usually but one closet, and that invariably a cesspool, wet and foul, reeking with filth, poisoned by noisome stenches, defiled by lewd couplets or obscene cuts, indecent from thin partitions and wide chinks, or from being preoccupied by one of the opposite sex. Under such conditions, what woman can avoid schooling herself into the habit of resisting the evacuation of her bowels? In the small houses of tradesmen and of mechanics the water-closet is rarely to be found; nor are the houses of the better classes always supplied with this luxury. The privy is, then, usually placed at the farther end of the yard, and approached by a long and unsheltered path. It is, therefore, almost inaccessible in bad weather or in dark nights, and is overlooked by the back-buildings of all the neighboring houses. To a delicate woman the exposure to the weather is a serious inconvenience; to one who is menstruating, it is a constant menace; while to every refined woman the exposure to view offers but one of two choices,—either that of having her sense of modesty blunted, or that of waiting until nightfall before responding to the calls of nature.

Nor does the condition of the closets in the country present a more agreeable contrast. In many parts of the Southern and Western States a clump of bushes, the shelter of a rock, the nearest grove, afford the only accommodations. But take the more thickly-settled States: where is the small farm-house whose privy invites rather than repels? The very name of *privy* is a misnomer. How seldom is the building hidden by clumps of evergreens or masked by any other disguise than that of a euphemism! How often is it not at an embarrassing distance from the house,—at the end of a long trail, or, at best, of a long and ill-kept path, which frequently runs parallel with a street or a road! How rarely is it ever provided with any other kind of window than round or crescent-shaped holes rudely cut out of the door! How commonly are the cracks dehiscent! The door itself is often without a bolt, often hanging by one hinge,—sometimes wholly unhung. Through the openings in the seat acrid blasts of wind sweep up as if impelled by some malignant demon. Now, add to all this the sickening stench, the conspicuous heaps of filth, the swarms of unclean flies, and confess that, despite the temerity of the description, the picture is not overdrawn.

Imagine now broad daylight with its busy traffic, a rainy day or a dark night, the grass wet with dew or the ground covered with snow, or the temperature, perchance, many degrees below zero. Under such circumstances, what woman can respond to the calls of nature without putting herself to great discomfort, to great risk, indeed, if she be menstruating, or without blunting the edge of her womanly sense of decorum?

Nor is this last phase of the subject the least important. The shrinking from publicity in the performance of these functions is neither "prudery" nor "false modesty," but a virtue of which our women may well be proud. In those countries where woman most disregards it, there is she least chaste, and there is the license of language least bridled. Whatever refines the body refines the mind, and *vice versâ*. The one reacts upon the other for better or for worse. Our forefathers, who scorned clothing and cleanliness, and who eased themselves, like their cattle, wherever the desire seized them, were in appetite little better than cannibals, in temper and morals lower than the brutes. When they began to wash themselves they began to clothe themselves; and after the culture of the body that of the mind followed as a matter of course. Thus soap becomes a great civilizer. "Show me," said the great Liebig,—or in words to this effect,—"Show me the nation which consumes the most soap, and you show me one which has reached the highest grade of civilization." So with regard to closets. "Show me," say I, "the nation that gives the most comfort, the most privacy, the most solicitation, to the evacuations of the body, and you show me, in refinement, in education, and in morality, the foremost people on the face of the earth."

I have told you the bane; now, what is the antidote? Clearly, *such closets as invite rather than repel*,—closets in which an operation of the bowels is not tantamount to being buffeted of Satan for a season. In cities, and in such towns as are supplied with water-works and good drains, the use of the water-closet ought to become universal. In the country, where such a luxury can be attained by the rich alone, the earth-closet is the only substitute; and I cannot too strongly urge you to advise its use among your patients and neighbors. Set the example by using one yourselves; you will soon get back more than its money's worth of comfort, health, and privacy.

Although, at my request, this gentleman has kindly consented to exhibit to you the mechanism of his earth-closet, yet I am not the advocate of his patent, or of any one of the patents now in the market. You must select the one which seems to you to meet best all the requirements. I am contending simply for the principle on which these earth-closets are based, and for the moral and hygienic advantages which they offer. A portable closet, like this one, not larger than an old-fashioned arm-chair, can be moved about from room to room, or be put where it will be both private and accessible. Nor will its presence poison the surrounding air, for there is no better disinfectant, no better deodorizer of organic refuse, than the dry earth contained in its hopper. Recognizing this property of earth, and also the laws of health, a wise Deity has, as the Creator, implanted in carnivorous animals the instinct of burying their excrement. As the great Lawgiver, he commanded the Jews to do the same thing. What cats and dogs do by instinct, man should do as well by reason as by divine command. Further: animal refuse thus treated becomes a rich and available manure. Like that fabled giant of ancient mythology, it gains strength and vigor from contact with its mother,—earth.

One thought more: As our title, *doctor*, indicates, we ought to be the teachers as well as the healers of the community,—the educators and the

refiners of those among whom our lot is cast. I once knew a member of our profession, a general scientist, and withal a great botanist, who so moulded the tastes of his fellow-townsmen that there is, I will venture to say, no other town in this country which, in proportion to the number of its inhabitants, contains so many excellent botanists, geologists, mineralogists, conchologists, and entomologists. Few farmers in that county have not had a liberal education, and scores there are who can show a well-arranged *hortus siccus* or give the botanical names of the indigenous plants and weeds. The town in which he lived has at this moment more successful schools—normal, public, and private—than any other of its size in the United States.

Now, what the late Dr. William Darlington did, each one of us can in a measure do, according to the talents vouchsafed to us. In scientific research, in the conflict of thought, our profession stands ever in the van. In that which refines, in that which uplifts soul and body, let it not lag behind. Begin, therefore, to teach as well as to heal; and the best lay-sermons you can at first preach are those against privies. Wage a successful crusade against these affronts to health and to decency, and you give better bone, better nerve, and better muscle to the state, and better morals to the people.

ORIGINAL COMMUNICATIONS.

YELLOW FEVER.

BY HARVEY L. BYRD, M.D.,

Professor of Diseases of Women and Children in the College of Physicians and Surgeons of Baltimore; President of the Epidemiological Association of Maryland, etc., etc.

Read before the Association by Appointment.

(Concluded from page 729.)

SYMPTOMS.

WE are, unfortunately, unable to present, as some authors have done, a regular order of symptoms as characterizing the initiation of the disease into the system. Much experience and close observation during three severe epidemics convince us that a *chill* is far from being the first or important symptom in the beginning of the disease. The paroxysm usually commences with a chilliness, but rarely is a well-pronounced rigor seen. The symptoms which usually usher in an invasion of this terrible malady may be defined *irregular;* varying in many cases with the circumstances of season, locality, constitution, age, and sex. We meet no such well-marked or sharply-defined symptoms as are almost always found in other forms of autumnal fevers; and it is only by careful examination of all the facts and circumstances in the commencement of an epidemic that the most experienced physician is enabled, in the beginning of an attack, to form a satisfactory conclusion in regard to the disease. A feeling of lassitude, a perverted taste or appetite, transient pains or uneasiness in the back and forehead, "cool streaks" down the back, often take the place of a chill, or even a general chilly feeling. To *these*, or the *chill*, heat and dryness of the skin soon succeed, with pains in the head, back, and limbs, and an uneasy feeling at the stomach. The *face is flushed*, the eyes red and muddy and appearing as though tears were about to flow; light is avoided, and in many cases the motions of the eye are painful. The patient looks alarmed, is anxious and restless when addressing you. The *pain in the forehead* (supra-orbital) is often intense, and always continues throughout the attack; confusion of intellect, or delirium, or even furious mania, is found from the first, in some cases. The *pain* and *aching* in the *back* are more or less severe, and occasionally almost insupportable. In the extremities the pains are usually severe, and invade both the joints and muscles of the legs, particularly the calf. The *stomach*, which Rush called the "throne of the disease," is almost invariably distressed and irritated, and vomiting is easily excited, or comes on spontaneously. First its contents are ejected, then bile, perhaps, and afterwards thin mucous fluid in large quantities and of different colors. The soreness and pain in the epigastrium are increased by retching; there is a sensation of heaviness and burning in the stomach, and the patient shrinks from pressure applied to that region. *Respiration* is slow or labored, with heavy, deep sighing, and præcordial oppression, or hurried, irregular, and embarrassed.

The *skin* is usually hot and dry, and imparts to the fingers a peculiar pungent sensation. The *orange hue*, so frequently alluded to by writers, tinges first the conjunctiva, then extends to the forehead, breast, arms, and body. It does not always manifest itself in the first stage of the disease, and may only be seen in the last, or it may not appear at all during life. It differs markedly, at least to the practised eye, from the yellow or sallow color of protracted intermittents and of jaundice, being deeper and darker, between a bronze and an orange color.

The *pulse* seldom exceeds 90, and is bounding, hard or jerking, sometimes irregular, and bears but little correspondence with the state of the general system. In some cases it is but slightly accelerated above the normal standard, and maintains remarkable uniformity, even in grave cases, until near the last. It is well calculated, therefore, to deceive the inexperienced, and to encourage hopes of recovery never to be realized.

The *tongue* is soft and swollen, so much so as to show indentations of the teeth, but it soon becomes fiery red at the point and edges.

The *thirst* is painfully urgent, and ice and cool drinks are vehemently demanded. In occasional cases, and during nearly the whole of an epidemic, the thirst was only moderately great: the above is, however, the rule.

The *bowels* are constipated, or torpid, and respond slowly to cathartics even of an active kind, and when moved the stools from the first are dark-colored and acrid.

Diarrhœa is of rare occurrence in the incipiency of the disease.

The *countenance* is so strikingly marked in expression in some epidemics as to enable an experienced observer to recognize the affection at a glance.

Even before the patient was aware that he was being attacked, we have often advised him to go home to bed, from observing this peculiar expression of the face as we passed him on the street. *The face is flushed and turgid, looking impatient, distressed, and gloomy; the eyes are watery and red; and in addition there is an unmistakable expression of fierceness and wildness of vision,* "resembling that of intoxication combined with sadness and terror." This is the best word-picture we can give of the peculiar "tout ensemble."

The foregoing symptoms constitute what has been not inappropriately named the "first stage of the disease," and form a sufficiently accurate description, as it is usually seen in our Southern cities, to enable it to be easily recognized. In this period is embraced the whole of the febrile stage of the disease in its ordinary course. It will be found to vary much in duration with circumstances, being longer or shorter even in persons of the same household. It sometimes extends to seventy-two, and may terminate within the short period of five, hours; but the average duration is from thirty-six to forty-eight hours.

The *second stage* is regarded as commencing when an abatement of several, or even of a few, of the leading symptoms of the first stage is observed, and when complete will form, not a remission as the term is applied in remitting fevers, but a total and perfect apyrexia. In this stage the yellow hue has extended to the whole surface of the body. The headache and pain in the limbs and back are absent, or greatly modified; the skin is soft; pulse natural, or but little more frequent and compressible than in health; less burning in the stomach; gastric irritability not so great; vomiting is diminished, and when it does occur is attended with less effort. The eyes are not so red and suffused; the flush of the face disappears, and the breathing becomes normal, or nearly so. This condition, so well calculated to deceive the patient, and even inexperienced physicians, into the belief that the worst has passed, if indeed convalescence has not actually begun, lasts usually from twelve to eighteen hours, and never longer than twenty to twenty-four hours; when the *third stage* may readily be known by the collapse which takes place, attended by extreme prostration of the patient. The orange hue of the skin grows deeper, and a bronze or mahogany appearance takes its place. This is particularly apparent on the face and hands. The pulse is quick, irregular, and depressed. The irritability of the stomach is now so great that nothing will be retained but for a moment, and its contents are ejected spasmodically and with force, the efforts being entirely involuntary and attended with little or no discomfort. The fluid thrown up at this time is seemingly a ropy, colorless mucus, which adheres closely to what it comes in contact with. This has received the names of "premonitory," "precursory," or "white vomit." The tongue is swollen, whitish, and moist on the sides, with dark-brown streaks in the centre. Sometimes it is dry and very red, and even cracked, so that dark blood is seen issuing from the fissures. *Hemorrhage* in some form, and from some surface of the body, if it has not already taken place, may soon be expected. Before its occurrence, the patient is cheerful and hopeful of recovery; but when it has unmistakably taken place, his hopes fade, and a marked change of countenance is again observed. The stomach becomes more and more irritable, and usually the first appearance of hemorrhage is seen in the ejected mucus, which constitutes what is known as *black vomit.* First the fluid thrown up is found mixed with dark-colored flakes, and these increase with the vomiting until the contents of the stomach seem to consist of a mixture of coffee-grounds and water. The fluid now escapes from the stomach even in hiccoughing, or spouts from the mouth as the patient lies on his back. The stomach often loses its contractile power at this time, and the fluid not escaping causes a peculiar gurgling, rumbling noise in that viscus, and in the bowels, attended with fulness and distention of the abdomen. In this condition, the intestines cease to be constipated, and discharge at an early period a fluid having the appearance and characteristics of black vomit. Breathing is laborious; the skin cold and clammy; great distress and oppression are experienced in the epigastric region; the patient sighs and moans; the eyes are dim and sunken; the tongue is tremulous and black; muttering and delirium ensue, and the powers of life rapidly give way. Hemorrhage may now take place from several sources, and thus hasten the end of the patient.

The foregoing symptoms have been related more nearly in the order of their occurrence under our own observation, and the arrangement adopted by Dr. Dickson, than by any other writer, and are as full and complete as our space will permit.

Yellow fever may, like other diseases, present an *inflammatory*—oftenest seen in the Southern cities—or *congestive* type; and the symptoms will be found to vary accordingly. *Cæteris paribus,* the congestive form is far more fatal, and more speedily so, than the inflammatory, and for reasons which must be sufficiently obvious to this scientific association: we shall not, therefore, consume time by further reference to them.

PROGNOSIS.

There are few diseases to which flesh is heir more fatal to life or more rapid in hastening their victims to the grave than yellow fever. Though the malignity and fatality are found to vary within wide limits in different localities, and in the same cities in different years, the prognosis may be generally regarded as unfavorable. The mortality has in certain cities reached as high as ninety per cent. in a particular epidemic, and fallen in other places as low as four to five per cent. It is a disease, however, that always requires the utmost vigilance and care of the practitioner for its successful management. The prognosis in individual cases will necessarily be greatly modified by circumstances. Apart from the importance of careful consideration of constitution,

age, habits of life, etc., in every case, the stomach should never be overlooked or neglected. Indeed, careful attention to its condition is of paramount importance if a successful issue is to be reached. It will be readily seen that its tranquillity and ability to retain what is directed to it are vitally important in the treatment of the disease. Uncontrollable vomiting is almost necessarily fatal. A "dark or sub-livid color of the tongue," darkness under the eyes, suppression of urine, and a considerable irritation of the urethra, particularly towards the glans, forcing the patient to squeeze the penis, as happens in stone or gravel, are symptoms of the utmost gravity, and portend a fatal termination of the disease. We have witnessed suppression of urine in yellow fever and cholera, and seldom has recovery succeeded it in either affection. There are other points of importance in this connection which might be profitably mentioned were time afforded; but the standard authorities are accessible to all, and we hasten to say a few words on the *pathology* of yellow fever. Attention has already been directed to its germinal or fungoid origin, and the circumstances necessary to the development of these germs in the human body in the production of the disease. But little, therefore, remains to be added beyond the fact that they alter or change the character and constituents of the blood in a most astonishing and extraordinary manner, increasing its fluidity and devitalizing it to such an extent as to render it unsuited to the proper nutrition of the tissues and organs of the body, and prone to escape by exosmosis or otherwise from various surfaces, internal or external, or from both, under certain circumstances, in the form of *hemorrhage*.

Pathological changes have been found on dissection of the body in various organs and tissues; but the most constant alterations or lesions occur in the blood, stomach, heart, brain, liver, and skin, the orange color of the latter being of more constant occurrence than any other except the abnormal condition of the blood. Indeed, it may be safely asserted, without the fear of contradiction or satisfactory refutation, that this most important *fluid is always disorganized. Black vomit* is the diseased *blood* still further *changed in character and appearance by the fluids which it encounters on entering the stomach*, and is nothing more and nothing less, as both chemical and microscopic analyses have satisfactorily proven. The precise manner of its taking place is probably by *diapedesis*. The liver, to which so much attention has been directed by some authors, presents no uniform appearance or condition. It may be found natural in appearance, or filled with dark blood, or flabby and soft. The "box-wood" or "straw color," or "café au lait" or "fawn color," as this appearance has been denominated by different writers, is far from being of very frequent occurrence, and is by no means so constant as has been supposed by some authors. But it is proper to state that, if it is not *peculiar* to yellow fever, it is often found present in persons who have died of that disease. Subcutaneous effusion of blood, or extensive ecchymosis, is seen in hemorrhagic cases.

TREATMENT.

It would be impracticable to attempt an enumeration of all the remedies, and the effects attributed to them by various writers, which have been employed in the treatment of yellow fever. In fact, almost every article of our voluminous materia medica has been recommended at one time or another, and more or less extolled for its real or imaginary therapeutic properties in this disease. *Our* remedies are not numerous, and are selected and administered with reference to the particular *stage* of the fever and *condition* and *age* of the patient. When these important considerations receive due weight, the treatment of yellow fever in our hands has not been unsatisfactory, as we remember the rapid course it is prone to run. It is not often that a case is seen in general practice in the forming stage, or that we witness a chill when it occurs; and we will therefore proceed to direct attention to some of the more important remedies in the *first stage*. As the disease has, under our observation, generally partaken of the *inflammatory* type, our treatment was directed with a view to combat the most urgent and important symptoms. As a rule, calomel, alone, or in combination with rhubarb and chalk, magnesia, or charcoal, and a small portion of pulverized capsicum, was the dose first administered, and this was followed, in two hours at farthest, by one of the neutral salts. If the bowels did not respond in a reasonable time, two or three pints of tepid water in which were dissolved one or two tablespoonfuls of common salt (chloride of sodium) were pumped gently into the bowels. In rare cases the lancet was used before any other remedy; as a rule, however, it was inadmissible, and then cold water was resorted to, by sponging, pouring, or shower-bath. This last method, when the appliances were at hand, was found peculiarly efficacious in relieving the excruciating head-symptoms, and the congestion of the eyes and face, as well as the heat of surface, particularly if the patient's feet were at the same time placed in warm water impregnated with mustard or nitro-muriatic acid, so as to produce a tingling on the surface. Broken ice swallowed instead of water was grateful and beneficial. If the head-symptoms returned with violence, the hair was cut, ice applied to the head, and warm bottles or bricks to the feet. Inhalations of ammonia and chloroform were used for the same purpose. On the slightest evidence of relaxation of the skin, and sometimes before its occurrence, recourse was had to the vapor bath, or even warm mustard bath, with the object of establishing diaphoresis. Mustard, dry cups, or chloroform over the stomach not only contributed to the relief of the pain in that organ, but assisted in keeping it quiet, a matter of vast, of paramount importance in all cases of yellow fever. Tincture of aconite root in a mixture of mint-, cinnamon-, or orange-flower-water, with bicarbonate of potash, is a combination of value in the final stage, and may be continued with benefit, if the aconite be omitted, in many cases in the second stage.

From two to four drops of aconite, and two to three grains of bicarbonate of potash, in a dessert-

spoonful of orange-, mint-, or cinnamon-water, as most agreeable to the patient, were given at intervals of two hours, after the bowels were moved, until the pulse was reduced and the skin became soft or moist. Hypodermic injections of veratrum viride, in highly inflammatory cases, were used with benefit in a few instances. *Muriated tincture of iron*, suggested by us in consultation with Dr. R. D. Arnold in a desperate case (Master Yates Thompson) in Savannah,—and from its charming effects in that instance grew its notoriety in that city during the terrible epidemic of 1854,—is a remedy of great and acknowledged efficacy in the treatment of many cases of the disease.

Second stage.—Prostration is clearly manifest in this stage; and it requires constant vigilance and attention to tide the patient safely over it.

Nitrate of silver in conjunction with hyoscyamus or opium, and acetate of lead, either alone or with opium, and muriated tincture of iron, should be resorted to, and the careful use of stimulants now begun and continued more or less energetically to and through the third stage. The patient should be sustained in every possible way in this trying stage, both by nourishment and remedies, and nature aided, as far as can be done, to regain her lost powers.

The recumbent or horizontal position should be preserved from the beginning of the second stage until the establishment of convalescence. Attention directed strictly to this one point is of the greatest importance in the successful management of yellow fever.

EFFECTS OF AN ATTACK ON THE SYSTEM.

On recovering from an attack of yellow fever, the individual will be found protected against a subsequent invasion of the disease, and the immunity will be almost complete if his residence is continued within the yellow-fever zone. *Acclimation* against zymotic diseases, as intermittent and remittent fever, etc., and the curing of previously existing chronic affections, such as rheumatism, neuralgia, certain cutaneous diseases, etc., are often observed as results of an attack of yellow fever. In some persons a tendency to obesity or the accumulation of adipose tissue is found to take place on recovery from the disease.

The length to which this paper has extended admonishes us that it should be brought to a close as speedily as practicable. Hence we beg to refer this attentive and appreciative audience, for additional and valuable information on this important subject, to the writings of some of our distinguished countrymen, as Lining, Irvine, Hosac, Wistar, the good, the great, and the lamented Rush, *clarum et venerabile nomen*, La Roche, Nott, Fenner, Dowler, North, Hume, and many others, and last, though by no means least, the eloquent and accomplished Samuel Henry Dickson. In naming the above it is no part of our wish or purpose to make invidious distinction between our confrères who have so ably written upon, and gallantly combated, yellow fever, but to pay a passing tribute to the noble dead. One word more of the departed Dickson,—and we would place the feeble tribute on his newly-made grave:—his eloquence was the legitimate offspring of purity and earnestness, and around the massive shaft of his logic the light of enthusiasm plays like sunbeams around the statue of Memnon.

We have presented as many facts appertaining to our subject as time would allow, believing that "*truth* never shrinks from a fair encounter." In the words of Milton, "Truth is strong next to the Almighty," and doubtless "is the purest ray reflected from the brightest gem in the diadem of the Great Jehovah."

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NOTE ON THE USE OF INJECTIONS OF SOLUTION OF BROMIDE OF POTASSIUM IN CHOLERA-COLLAPSE.

BY WILLIAM PEPPER, M.D.

IN a brief article published in these columns (July 12) I suggested the use of injections of warm solutions of bromide of potassium into the veins of patients suffering from cholera-collapse. I am indebted to Dr. Joseph G. Richardson for calling attention, in the issue of July 26, to the fact that the solution recommended (gr. xv to f℥j) was evidently too strong; and I am glad to take this opportunity of correcting an error which was inadvertently published. It is, indeed, to be remembered that we cannot anticipate that the injection of a small quantity of a three per cent. saline solution into the veins of a cholera patient will produce effects upon the blood at all comparable with those which are seen to follow when blood-corpuscles are treated with it under the field of the microscope. The fluid becomes diluted with the serum of the blood in the very act of injection; and it is further probable that the action of such saline solution upon the corpuscles of the thickened blood in cholera would be less powerful than normal.

It is, however, very possible that a three per cent. solution would produce some injurious action upon the corpuscles; but what is more certain is that the quantity of fluid injected should be quite considerable. I would recommend that from one to one and a half pints of water (of a temperature of 105° Fahrenheit), containing fifty to seventy-five grains of bromide of potassium in solution, should be used at each injection. The employment of a large amount of fluid is evidently of great importance, since one of the beneficial results of such injections is undoubtedly the dilution of the thickening blood. It has also been a matter of uniform experience that the injections should be of quite high temperature (105° to 108° Fahrenheit),—a fact which Dr. George Johnson explains by supposing that the warmth relaxes the spasm of the minute arteries.

Dr. Hanot recently reported to the *Société de Biologie* in Paris a case in which uræmia, supervening on general paralysis, was diagnosed by the symptom pointed out by Bourneville,—a rapid and general decline of temperature.

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY OF PENNSYLVANIA.

CLINIC OF DR. H. C. WOOD, JR., ON DISEASES OF THE NERVOUS SYSTEM.

Reported by L. B. Baldwin.

TRIGEMINAL NEURALGIA.

MARGARET COLLIGAN, æt. 60 years, Irish, married, mother of eight children; family history, healthy,—*i.e.*, no neural disease.

Six months ago, noticed something the matter with her right eye,—"pain and watering." For this she visited the Eye Dispensary in Locust Street, but after a few visits had to give up, on account of the severity of the weather. About the 1st of March, began to have pain in face and head,—right side,—gradually increasing in severity up to the present time. Shortly after this, began to have a buzzing in the head. Ascribes all her troubles to an attack of rheumatism which confined her to her bed for five months previous to the beginning of her present affection.

Present condition.—Appetite, digestion, and secretions natural.

Has a steady aching pain upon right side of head and face, extending almost as far back as the occiput and forward to the median line of face; felt also beneath jaw and at root of tongue.

There are paroxysms at irregular intervals throughout the day, during which the pain becomes sharp and lancinating, the muscles of the face at the same time contracting, principally the orbicularis palpebrarum and zygomatici,—"making faces." There is no anæsthesia; no appreciable paralysis; pain upon pressure over the infra-orbital and mental foramina; none over supra-orbital.

The right eye is partially closed; conjunctiva reddened and watery. There is a continual running from the right nostril; complains of a constant buzzing or singing in the head, likened to the noise made by a running hydrant; tapping with the fingers over temporal region causes no pain, but a noise as of thunder is heard by her; complains at times of a deep-seated pain in eyeball.

Symptoms all increased in severity at night.

The first feature, gentlemen, which attracts attention in the case before us is the intense pain which she suffers on one side of the head without any inflammation or other obvious cause. The points of most intense and limited pain are found to be over the infra-orbital, nasal, parietal, and lingual branches of the trigeminus; most severe in the parietal region. Attention was called to the neuralgic foci in these complaints by Valleix, who found them to correspond to points at which the nerves make their exit from bony foramina; and we find patients suffering with intense pain at one or more of these foci, which, according to its situation and cause, receives different titles for purposes of distinction and classification.

Neuralgia of the trigeminal nerve is a common and serious disease; serious not so much by threatening life as by causing intense suffering and rendering life a burden.

Most authors present for consideration six different forms. I think, myself, five only exist, as I shall endeavor to show you that "clavus" and "migraine" are identical in origin and in symptoms and require the same treatment.

The first form, known as "*rheumatic*," is quite common. It occurs in persons subject to rheumatic troubles, or it may be traced directly to exposure to cold or wet.

In my experience, the localization of pain to foci is not so marked in this as in other forms of trigeminal neuralgia; and by the acuteness of the attack and the history of its cause, or by the known diathesis of the patient, you may in most cases readily recognize this variety.

The second form is the *malarial*. It is very important that you should be able to recognize this variety, because its treatment is definite and both rapid and certain in results. It occurs in those who have been exposed to malarial influences; and with it other forms of malarial disease may or may not coexist or alternate. Its characteristic phenomena are paroxysms of intense pain, almost always confined to the supra-orbital focus, and occurring at regular intervals. It may assume the quotidian, tertian, or quartan type. It may be the first symptom of malarial disease, or it may plague the victim of the most chronic malarial fevers.

The diagnosis is confirmed by the results of treatment with quinia. This alkaloid must not be given in doses of gr. xv daily, as in simple *ague*, but in doses of gr. xxx daily; and although temporary deafness and even blindness may be produced, you will cure your patient.

Migraine is the affection popularly known as "sick headache," or rather it is one of the affections so known, for there is another sick headache, commencing with dizziness and blindness, in which the pain is a heavy, dull ache extending clear across the forehead, and is in reality dependent upon digestive derangement. In migraine this is not so. The pain occurs in paroxysms at irregular intervals, is unilateral, and especially affects the supra-orbital focus. It sometimes comes on suddenly, more generally, however, gradually, and increases steadily until it amounts to agony. Sick stomach is generally developed, and after it the pain subsides in most cases, but sometimes violent repeated vomiting, with intense agonizing headache, will persist for hours. That the vomiting does not really relieve the pain in those cases in which it appears to do so, and that the symptoms are not really of gastric origin, are shown by the facts that, when artificially produced, emesis does no good; that it often fails to relieve even when spontaneous, and that in many attacks it is absent. It merely corresponds to the period of lowest depression, when the system is about to react.

Migraine always develops itself about the age of puberty, and is generally hereditary. Some debilitating influence is usually the immediate cause; but this alone is seldom sufficient to produce the disease unless there is a hereditary predisposition; on inquiry, a brother, sister, and father are often found to have suffered from some neurosis,—not *necessarily* the same form of nervous disorder, for hysteria or epilepsy in one generation may be followed by migraine in the next.

I may say, here, that I have seen migraine occurring in families heavily tainted with hereditary gout, and believe that in some cases it is simply a form of "irregular" or "nervous gout."

As an example of the points above alluded to, I may mention the case of a lady whom I attended in private practice, in whom, at the age of seventeen, acute diarrhœa was converted into a chronic one by the skilful ministration of an intelligent homœopath, and in whom during the state of induced debility migraine of a very severe type developed itself.

In *clavus* the pain is more limited than in migraine to a simple focus, very generally to one of the parietal. The affection, indeed, gets its name from the exceedingly local character of the pain. By the point of your finger you can cover the affected spot; and, as the agony is often compared by the sufferer to the feeling of a nail being driven into the head, the term *clavus*, a nail, has been applied to it. Like migraine, clavus is first seen in early life, and in later years may degenerate into attacks of neuralgia having no specific type.

What is the difference between its course and that of migraine? You have the same character of pain, nausea, sick stomach, vomiting, with or without relief of the paroxysm; the same hereditary influences exist in both; neither occurs for the first time in old age. When a neuralgia develops after the age of fifty, you may say positively it is neither clavus nor migraine.

Clavus is, then, a trigeminal neuralgia of the same form as migraine; and as it sometimes alternates with migraine, I do not think that they ought to be considered distinct affections.

Clavus is sometimes called hysterical. This is probably an error, for if it does occur with hysteria it is in no wise essentially connected with it. Perhaps the best way of expressing the truth would be to say that, whilst there may be a hysterical clavus, clavus is not necessarily hysterical.

The fourth form of trigeminal neuralgia is *tic douloureux*. This is more serious than clavus or migraine. It is very often incurable, and renders the patient miserable for the remainder of his days. This form, contrary to migraine, never develops in early life, but during middle age and at later periods, when the various tissues are losing their vitality. Nearly always evidence of atheromatous disease may be discovered by the tortuous course and hard, thickened character of the arteries, by the "arcus senilis," or by the loud, clanging second sound of the heart, betokening aortic change. It sometimes involves the branches of the trigeminal which accompany the trifacial, and thereby gave origin to the old belief that that nerve was sometimes sensory. It consists of attacks of agonizing pain occurring suddenly and ceasing as suddenly, in half a minute or so, and again returning until the attack which is composed of these "tics" is over, to return probably in five or ten minutes.

The muscles of the face often twitch, or are violently convulsed, during the attacks; but in some cases of tic they become set and rigid during the paroxysm, whilst in others they are not evidently affected. These attacks are sometimes relieved by *firm* pressure, but often are produced by a slight touch.

An affection which you may confound with trigeminal neuralgia is the so-called *anæsthesia dolorosa*. This disease at first sight seems very peculiar or paradoxical, from the fact that sensation is entirely lost at the points to which intense pain is referred, so that you may cut or burn the side of the face affected without producing pain. The intense suffering and the sensory paralysis are due to some lesion at or near the origin of the nerve. A tumor, for instance, may so press upon the trunk close to its origin as to destroy its power of conducting impulses from the periphery to the centre, whilst by a simple reflex irritation, or by a propagated neuritis, the centre may be thrown into a condition of high excitement. The resulting pain is of central origin, but is referred by the patient to the peripheral ends of the nerve, owing to the long-established habit of the part, and is strictly comparable to the pain which is felt in an amputated limb. Anæsthesia dolorosa is to be distinguished from true neuralgia by the presence of the anæsthesia which its name indicates.

You will now, I hope, be better able to interpret the symptoms of the patient before you, whose history I have read. The case, in its coming on late in life, in the obstinacy of its attack, and in the coexistence of evidences of degenerative changes in the tissues, undoubtedly resembles one of tic douloureux; but the history of chronic rheumatic trouble preceding it, and the fact that she has improved under treatment for the rheumatic form, induces me to call it *rheumatic*. Neither do you find the pain so moderate in "tic" as presented in this case.

Let me call your attention, gentlemen, for a moment, to this patient's eye. You see that there are very distinct evidences of structural alterations. Not being an oculist, I do not offer any opinion as to their nature, but simply show them as instances of the trophic changes which not rarely accompany, if they are not indeed due to, trigeminal neuralgia.

In the case of migraine to which I have alluded, the attacks were often referable to a direct cause: certain states of the weather or degrees of atmospheric moisture would at times bring them on, and overfatigue would always have the same result. In this lady I have often noticed a fetid odor of the breath preceding an attack, especially when the latter was produced by over-fatigue from any cause. Thus, a long walk, or inordinate household duties, would in a twinkling, as it were, cause a perfectly sweet breath to become a very offensive one. The odor disappeared as the attacks subsided, and any gold about her person became blackened or tarnished at such times, showing the presence in the perspiration, as well as in the breath, of hydrogen sulphide, or other sulphur compound. We find in some cases of migraine peculiar alterations in the modifications and appendages of the skin. The hair, for instance, becomes hypertrophied, or, *vice versâ*, atrophied; and a portion or all of the hair may lose its color. In the case of Dr. Anstie, who suffers from this disease, a few locks of his hair become white during each attack, and again regain their color.

As in intercostal neuralgia we may have herpetic sores along the course of the intercostal nerves, in migraine we have various eruptions. Thus, the case already referred to suffers from acne almost exclusively confined to the side of the face in which the neuralgia is seated.

The treatment of trigeminal neuralgia necessarily varies with the form. In migraine or clavus the indications are to relieve any existing disorder that may be connected with it, and build up and improve the patient's general condition. The case of migraine here described was treated for chronic diarrhœa, and by hygienic measures, for a time, without any direct efforts being made against the neuralgia, and the attacks were soon reduced from four or five a week to one a month.

For those persons who naturally have a dislike for fatty, oily matters, and where there are no dyspeptic symptoms, cod-liver oil is often of great advantage.

We must be careful in using alcohol and opium in full doses for the relief of pain, for fear of producing the habits of intoxication and opium-eating. Opium you will find to disagree with many of these cases of migraine, causing great nausea and vomiting, which last for twenty-four hours. I have obtained great relief from a combination of opium and the bromides in such cases: for instance, tinct. opii deod., ℥ xxiv, with potass. brom., ʒss, may enable you to give ease without bad results.

In rheumatic trigeminal neuralgia, of which this patient is a specimen, I employ repeated blisters over the mastoid region, with the internal administration of potass. iodid. Tincture of aconite, or other anodynes, may be used externally, or opium internally, if necessary, to relieve pain.

Where you have facilities, the employment of sulphur- and vapor-baths should not be neglected.

There is a syphilitic form of this disease, probably dependent upon the pressure of thickened periosteum on the nerve as it passes through its bony foramen. This yields readily to potass. iodid. and counter-irritation.

[The patient rapidly improved under the use of the iodide and the local application of blisters. In a few weeks she was discharged, well.—H. C. W., Jr.]

BELLEVUE HOSPITAL, NEW YORK.

OPIUM-POISONING—ADMINISTRATION OF OXYGEN—DOUBLE PNEUMONIA—DEATH.

BY W. H. FARRINGTON, M.D.

THE following are the notes of a case of opium-poisoning, the first, so far as I know, in which oxygen has been employed.

Patient, V. P., æt. 25, drug-clerk; took by mistake sol. morph. sulph. (Magendie) ʒiij on the morning of April 16, 1873, about 7.30 A.M. When seen a few minutes later, he was rapidly becoming comatose. A physician was immediately summoned. The patient now was fully comatose, his pupils intensely contracted. A hypodermic injection of atropiæ sulphat., gr. $\frac{1}{30}$, was given, and an enema of coffee. From the ambulance surgeon he received brandy, and efforts were made to arouse him by flagellation. On admission (10.40 A.M.), patient was completely comatose, with entire absence of reflex sensibility. The surface was cold, the features dusky, the lips and finger-nails cyanotic. Pulse 56, feeble and irregular. Respiration 13, noisy, shallow, and irregular. Pupils were fully dilated and irresponsive. An enema of coffee and whisky was given, and artificial respiration made by Sylvester's method, until 11 A.M., when a galvano-faradic battery was obtained. The secondary current was administered, one pole placed over the course of the phrenic nerves in the neck, the other over the anterior origin of the diaphragm. His condition slowly improved, and at 12.15 P.M., though still unconscious, the surface was warm, the respiration more profound, but slow, the pulse 112, full, compressible. Cyanosis had disappeared. At 1.30 P.M. the battery began to fail, and almost immediately the pulse sank, and in a few minutes could not be detected at the wrist. Cyanosis returned; the respiration again became superficial. A hypodermic of whisky, ♏xxx, was given, and subsequently of atropiæ sulph., gr. $\frac{1}{30}$. A second battery was obtained, and the bad symptoms again disappeared. In an hour this battery also failed, and a repetition of the above took place. A third battery was kept in operation until 5 P.M., when a jar of oxygen was obtained. The patient was still comatose, insusceptible to external impressions. Respiration slow, 12, but good. The gas was administered by means of a dentist's "laughing-gas" bag, care being taken to admit some atmospheric air. During its administration some evidence of returning consciousness was manifested, the patient opening his eyelids and looking around vacantly, immediately relapsing into coma when the bag was removed. A second bagful was given, with a similar effect. A third bagful was administered, and the patient became still more conscious, the action of the gas being assisted by flagellation. A cupful of coffee was swallowed, and the patient was walked up and down the ward. By these means he was kept awake until 7 P.M., when, though still drowsy, he was able to converse intelligently. Symptoms of pneumonia of the lower left lobe manifested themselves next day, and in a week from the day of admission the patient died of double pneumonia. This could not possibly have arisen in consequence of exposure, as the greatest care was taken to avoid currents of air. Notwithstanding the fatal termination of the case, I am fully convinced of the utility of the gas in cases of this sort.

FISTULA IN ANO.—Dr. Hute employs an ethereal solution of iodine in fistula in ano, which is more exciting than the tincture. Patients are not obliged to keep their beds. He has had several cures after one injection.—*Medical and Surgical Reporter.*

TRANSLATIONS.

DETERMINATION OF UREA.

Translated from *Le Mouvement Médical*, June 7, 1873.

AT one of the last séances of the Society of Biology at Paris, M. Esbach related his experience in endeavoring to discover whether the previous decolorization of urine by animal charcoal would facilitate the determination of the proportion of urea. The results of his experiment are as follows:

Decolorized urine submitted to a ureometric analysis shows a sensible loss of about one-tenth of the nitrogen which should normally exist. In acting separately on the decomposable nitrogenous elements with the hypobromite of soda, it is found that there is a marked loss in the solutions of urea and creatin, but none in that of uric acid. Finally, examining the proportions of these different elements in the urine, M. Esbach established that in decolorizing urine by animal charcoal there would be an error of from two to five grains in the urea contained in the urine of twenty-four hours.

It is known that the hypobromite of soda disengages instantly all the nitrogen of urea; but it is not so with the other nitrogenized substances in urine, such as creatin, creatinin, and uric acid. These compounds only give up their nitrogen by successive transportations in such a manner that by prolonging the action of the reagent one can always proceed with their decomposition.

Now, M. Esbach has found that he only determines $\frac{1}{20}$ of the nitrogen in uric acid, $\frac{1}{10}$ of that in creatinin, and $\frac{2}{3}$ of that in creatin; and after the necessary calculations he concluded that by his method the greatest error caused by other substances than urea is $\frac{1}{70}$, an error which he considers to be practically unimportant.

M. Esbach at first thought to determine as a whole the nitrogenous products of animal waste, but now recognizes that he can scarcely determine the *urea;* and it is this important result which he wishes to make known.

HYPODERMIC INJECTIONS OF NITRITE OF AMYL IN CHOLERA.—Dr. David B. Smith (*Indian Medical Gazette*, May 1, 1873) reports a case of cholera-collapse treated with nitrite of amyl administered hypodermically. Two drachms of the drug were thus given in one hour and thirty-six minutes. Respiration was slightly accelerated, the temperature rose two degrees, the effect on the pulse was transient and insignificant, and the general condition of the patient was not in any way improved. Death ensued two hours and a half after the operation, which had caused slight restlessness, but neither thirst, dyspnœa, nor convulsions. According to Dr. Talfourd Jones, there are the following theoretical reasons for the employment of amyl in such cases:

1. The collapse of cholera is the result of an impediment to the circulation of blood through the lungs, and this impediment is due to the contraction of the muscular fibres of the minute pulmonary arteries.

2. The cramps of cholera are due to a like spasm or contraction of voluntary and involuntary muscular fibre in other parts of the body.

3. Nitrite of amyl possesses the property, when taken into the system, of causing relaxation of muscular spasm and arterial dilatation.

4. In many features there is a considerable resemblance between cholera-collapse and asthmatic collapse.

5. Nitrite of amyl is a remedy capable of giving instant relief in asthmatic collapse.

In the above case, the remedy had a very careful and fair trial, caused no unfavorable symptoms, but certainly could not be said to have produced any beneficial effect whatever.

PHILADELPHIA
MEDICAL TIMES.
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MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

PRIVIES AND MORALS.

"GIVE us an ounce of civet, good apothecary, to sweeten our imaginations," was our cry after reading the lecture which heads this number of our journal. But to be in harmony with the facts and requirements of the day, repulsive though they sometimes may be, should be the higher aim of the physician,—"to teach as well as to heal." From confining his remarks, however, to the diseases of women, Dr. Goodell could not, necessarily, grasp the subject in its fulness; and this has led us to choose his lecture as the text of this editorial. For if the evils arising from the present system of closets are so many and so grave when seen from a single point of view, what must they not in the aggregate sum up?

The study of excrementitious products, unless under the ægis of palæontology, has too long been excluded from the pale of science. But the time has come when coprolites must yield in interest to what naturalists would call the "wet specimen." For the former is merely an evidence of past life; the latter menaces life; and life, according to the Roman, is not simply *to be*, but *to be well*. The subject of closets, therefore, is one which should enlist the earnest attention of every hygienist; not one to be monopolized by itinerant agents and the vendors of royalties.

What to do with the sewage of a large city is a very grave question; a problem still practically unsolved. As matters now stand, the ground over which we live and move and have our being is honeycombed by cesspools, burrowed by drains, and sodden with fæcal matter. We dwell in the valley of the shadow of death, with apparently no way of escape. The privy is a pest-breeder which we trust a progressive intelligence will not long tolerate. The evils let loose from this box of Pandora are too well known to need comment. Whole towns have been infected by its malignant germs, great cities decimated by its putrid percolations. The water-closet offers so much privacy, so many comforts and conveniences, that it will long maintain a strong hold on the public favor. But, apart from other hygienic defects, it threatens to pollute our rivers, and, therefore, to poison our only sources for an unlimited supply of water. Again, it compels the loss of a most valuable manure, which should be reclaimed for the truck farms lying around a great city. In this dilemma, the only *tertium quid* which science can offer is the earth-closet; and this, with all its imperfections, we must accept until something better "turns up."

The want of accessible closet-accommodations is another evil felt throughout the length and breadth of this land. Although the lecturer has enlarged on this point, yet he has neglected to advert to the lack, in cities, of public closets. What one of our readers in his round of visits has not been at times so "straitened in his bowels" as to suffer unspeakable agony both of body and mind? Women from the country who visit the city "on shopping thoughts intent," have absolutely no places where they can relieve themselves. The only ones generally available to the other sex are such filthy apologies as are to be found in low taverns and drinking-shops. Women, therefore, are made constantly liable to all those disorders arising from over-distention; while men have thrown in their way an additional temptation to intemperance. With these facts staring him in the face, can no philanthropist see it in the line of duty to become the Tancred of a public-closet movement, the Coryphæus of a new municipal departure?

In these advanced times, when the moral differences between the sexes are in danger of obliteration, when strong-mindedness aims to become a virtue, and when foreign manners—or rather want of manners—are held up as examples, there may be some who will stamp as sentimental rhodomontade the encomiums of the lecturer on the so-called "prudery" and "false modesty" of our women. But we put it to those of our readers who have buckled on knapsack and footed it through the less beaten paths of European travel, whether they have

not often seen such instances of shameless exposure as they would not tolerate in their own countrywomen. From a painful experience we know that very few of the hamlets and villages possess even the semblance of a privy. The adjacent fields and highways tell plainly to the sight and smell the approach to human habitations. The way through the streets themselves has to be very cautiously picked even in broad daylight. The mortifying surprises—at least mortifying to the ingenuous tourist—are unpleasantly frequent. One soon becomes "disillusioned" and "disoriented." Even where proper accommodations exist, decorum and decency do not. To give but a single illustration: While staying at one of the hotels in Venice, we one morning suddenly came upon a lady who was worshipping with unclosed portals in the temple of Cloacina. We blushed; but she, not a whit abashed, kept up a lively chat with a party of one lady and two gentlemen who were without, awaiting their turn.

Of course, except in a Garden of Eden, such absence of shame goes hand-in-glove with license of language and of morals. Human nature being human nature, they are of necessity inseparables. Witness the licentious tone of the best French novels, the broad jokes and double-entendres still tolerated by foreign society, and the utter lack of respectful deference to woman which characterizes the people of continental Europe. More than a hundred years ago, a French lady somewhat confused the not over-bashful author of the "Sentimental Journey" by using the language of the nursery to explain her short absence from the coach in which they happened to be fellow-passengers. This artlessness still thrives luxuriantly on Gallic soil. May it never take root in our own!

DISPOSAL OF THE SEWAGE IN PARIS.

FROM the *Medical Times and Gazette* for July 12 we glean some facts most interesting to hygienists and agriculturists. The drainage of Paris is to be prevented from entering the Seine, and to be utilized by being received into two vast "collecteurs," one on each river-bank. Thus far the experiment, although uncompleted, has worked to a marvel. A vast tract of sandy land, close by the gates of the city, and known as the plain of Gennevilliers, has long been proverbial for its sterility; but, by being flooded with the sewage-water, it has been converted literally into a most wonderfully fertile garden. Asparagus there now attains perfection in less than two years. Beet-roots reach the weight of from twenty to thirty-five pounds. Artichokes, cabbages, lettuce, and rhubarb grow to a colossal size. As to fruit-trees, they bear beyond all precedent. The annual rents, says the *Revue des Deux Mondes* for July 1, have consequently risen from eighty to six hundred francs per hectare. In two or three years the whole sewage of the city will be diverted from the Seine to the two thousand hectares of this sandy plain. As soon as this has been accomplished, every private house will be made to communicate with the sewers, and the lumbering night-carts, with their noisome stenches, will soon be among the things that are not in that gay city. To give some idea of the magnitude of the undertaking, there are at the present time in Paris 85,775 *fosses d'aisance*, of which 52,128 give employment to several hundred night-men.

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times:

DEAR SIR,—I have read with much interest the letter of Dr. Julio J. Lamadrid, in your journal of August 2, in regard to a fistulous opening over the sacrum, containing hair. Dr. J. Mason Warren, in his "Surgical Observations," refers to several of these cases, and adds some remarks, which I here quote, in regard to the nature and origin of the disease:

"On opening this fistula in similar cases, a small curl of hair has generally been found occupying the bottom of the cul-de-sac. This hair seems occasionally to act as a foreign body, giving rise to inflammation, with the formation of abscess, resulting in fistulous openings extending in various directions, thus often concealing the original difficulty. By a careful exploratory operation, however, the little wisp of hair may be discovered in some part of the sinus, lying perfectly loose and unattached to the surrounding tissues. I have once seen this in a woman whose hair was dark and more than usually developed in that region; all the other cases, numbering perhaps eight or ten, have been men.

"The origin of this singular affection is involved in obscurity. It would seem possible, however, that it may begin in the stout hair or hairs arising from a single follicle becoming in some way diverted from their normal direction and inverted upon themselves within the follicle itself; the continued growth of the hair would then result in the formation of a tangled knot or ball of hair, which might readily give rise, after a time, to irritation, just as a similar accumulation of sebaceous matter in the follicles of the face may excite that form of inflammatory action known as acne.

"The occurrence of the disease in the median line between the folds of the nates may perhaps be explained by the constant pressure and moisture of the part, softening both the newly-formed hair and the epidermic cells surrounding the mouth of the follicle.

"The treatment of this affection consists in laying freely open the cavity or cavities when the occurrence of inflammation has involved the skin and subcutaneous tissue; or, in case the skin still remains healthy, the sac may be laid open and then dissected out. The integuments should be brought together with one or two sutures, thus insuring a more speedy cure than if a simple incision is practised. This affection is interesting in connection with what has just preceded it, from the fact that the persons who apply for relief almost always suppose that they are laboring under the disease of fistula in ano."

I do not remember to have seen an account of this disease in any other work on surgery.

I am very respectfully yours,

J. Collins Warren.

Boston, August 4, 1873.

To the Editor of the Philadelphia Medical Times:

DEAR SIR,—Some time since, I had under my observation in a hospital a medico-legal case in which I was much interested, as the anatomical relations of the wound were curious, and a knowledge of the extent of the internal injuries would have been valuable by enabling me in the future to make a more certain diagnosis in similar cases. The patient, after lingering some time, died, and was straightway removed from the hospital. The coroner's physician made an examination, and discovered—something; what, I only know from the scientific description of a newspaper reporter. Now, my complaint is that no one connected with the treatment of the case had an opportunity to be present at the post-mortem, either to verify or correct the diagnosis made during the patient's life.

The case was one which might have been of interest to report could it have been given in its entirety; but now it is lost, with the treatment locked up in one place, and the post-mortem results buried in the depths of the mind of the coroner's physician. I say buried, because the medical profession rarely derives information from the scientific experience of that official in this country.

It seems wrong that a hospital should care for a patient while living, and its staff be robbed of any possible pathological information when he is dead,—their only remuneration.

If our large cities were districted, and the coroner's necropsies performed in the dead-rooms of the various hospitals, valuable information might be furnished to students which could be derived from no other source. If this is impracticable, and the autopsies must be made at the morgues, why should not the coroner's physician deliver a course of lectures and demonstrations, as was done by Caspar, and save some of the material which is now utterly wasted? In either case, it would be only civil to invite those to be present at the post-mortem who have been interested in the case during life, and who will in all probability be obliged to waste time by dangling round the courts as witnesses.

Yours,

Hospital.

REVIEWS AND BOOK NOTICES.

Contributions to Practical Surgery. By George W. Norris, M.D. 8vo, pp. 318. Lindsay & Blakiston, Philadelphia, 1873.

It is a good custom which leads men at the close of their professional career to lay before the public some of the results of their experience. With us such books always carry weight, knowing their conclusions to be based upon the observation of more than one or two cases, differing widely from so many of the medical publications of the day, which, founded upon defective or scant observation, are too often worthless, while some are written in the true spirit of quackery, to advertise the author's name and bring grist to his mill. For these reasons we ever gladly welcome such publications as the one before us.

As will be gathered from the preface, most of the articles contained in this volume made their appearance in print years ago, and are too well known and too largely quoted from to require any notice from us. In their present shape they have been revised, and many new cases added, so that, although great advances in the domains of pathology and therapeutics have been made since some of these papers saw the light, their value has not been a whit diminished, and they are yet referred to by most standard writers as authoritative.

The paper upon Compound Fractures is entirely new, being an elaborate review of the whole subject, rich in practical points such as can only result from a large public and private practice, the former, as we are told, having extended over a period of thirty years at the Pennsylvania Hospital. To those who have followed the practice of the Pennsylvania Hospital, and who, a few years back, enjoyed the advantage of listening to the clinical lectures of the author of this volume, most of the points dwelt upon will appear as twice-told tales, yet welcome, as bringing to mind forgotten details of treatment, and reviving old memories; while to those who may feel no personal interest the intrinsic value of the article is great, embodying as it does the line of treatment adopted in that time-honored hospital, which has ever been followed by a large average of success, and a thorough acquaintance with which can hardly fail to be of service to those who are called upon to treat these most interesting and serious cases. The subject is systematically arranged, and the complications are treated in detail; but our space is too limited to admit of more than a passing notice of one or two points before we commend the book to the consideration of the reader.

Immovable dressings do not receive the endorsement of Dr. Norris, at least in civil practice, nor does he think they are any better suited for the treatment of compound than of simple fractures, in which cases we have been disposed to admit their value; but in army practice they are favorably considered by the author as a choice of evils. Though our author has not met with many cases in which resection of the ends of the bones was necessary to effect reduction, yet he thinks the practice of so doing is a good one, and adduces a formidable array of standard authorities in its support. No doubt cases requiring such treatment do occur, but we believe them to be rare, and fear lest the approval of the practice may open the door to much meddlesome surgery. The vexed question so often raised as to the expediency of amputating while traumatic gangrene is still spreading, is discussed fully and fairly,—authorities who favor immediate interference being cited with even-handed liberality, though Dr. Norris has himself always waited for a line of demarcation to form, and thinks he has had no occasion to regret his course. The whole paper is replete with interest, and its style is moderate and impartial, furnishing a

marked contrast to the ex-cathedra tone and impassioned energy displayed by so many writers,—partisans of matured views and slight experience.

At the end of the volume will be found an interesting case of varicose aneurism, which, occurring as the result of the almost extinct operation of phlebotomy, has a decidedly old-time flavor about it. Ligatures were applied above and below the unopened sac, and most troublesome and repeated hemorrhage ensued, necessitating division of the sac and ligation of all the bleeding points; but even this radical measure was insufficient, and graduated pressure had to be resorted to as an adjuvant to the complete cure of the patient.

The printing and paper are excellent, and there is a general freedom from typographical errors; though on page 152 the name of the patient Summerill appears to have been substituted for that of the surgeon, Dr. Barton.

We take our leave of this book, feeling assured that those who read it will find both pleasure and profit in so doing.

GLEANINGS FROM OUR EXCHANGES.

The Statistics of Rheumatism.—Dr. Peacock, in the annual report of St. Thomas's Hospital, London, gives the following as conclusions arrived at from a careful study of eighty-seven cases of acute rheumatism:

a. The acute forms of rheumatic fever are most common in early life. The chronic forms are almost peculiar to old age.

b. The disease is more common in men than in women, in consequence of their greater exposure to cold and wet.

c. One attack of acute rheumatism predisposes to another.

d. As many as nine attacks were found to have occurred in one patient.

e. In the majority of cases the disease runs a mild course.

f. In none of the cases reported did the temperature rise above 104° Fahr.; and in only a few did it reach 103° Fahr. The highest temperature was usually found on the day after admission.

g. Very little joint-mischief is sufficient to cause a rise in the temperature.

h. The greatest risk in the course of the disease arises from cardiac complication. Over 33 per cent. of the whole number of cases showed more or less signs of it, and in most instances the heart was found affected at the period of admission.

i. Cardiac complications are most common in early life, and are more frequent in the male than in the female.

j. The cardiac mischief is not directly proportional to the severity of the fever. In a mild case the heart may become affected, while in a severe case it may remain entirely unaffected.

k. Pericarditis is most common in the slight, endocarditis in the severe attacks. The former complication is more amenable to treatment than the latter.

l. Cardiac complication, although the most formidable, is not the only one to be feared in the course of acute rheumatism. Inflammations of the lungs and pleura are not unfrequent.

m. The treatment consisted, in *acute* cases, chiefly of the bicarbonate of potash, with or without some nitrate. In the subacute, iodide of potassium and small doses of colchicum were administered. When the pain was severe, opium or Dover's powder was given at bedtime; and mercurial purges when the tongue was foul.

n. Heart-complications were combated by blisters and poultices.

o. Convalescence was aided by quinine and iron.

On the Decussation of the Nerve-Fibres in the Optic Commissure, and Hemiopia.—By means of microscopical examination of the normal organs, and by physiological experiment, carried out in the laboratories of Brücke and Meynert in Vienna, Dr. Mandelstamm finds that there is a complete decussation of the optic tracts at the chiasma, and not, as we have been taught, a merely partial one. The experiment consisted in removal of the pair of the corpora quadrigemina, and of the optic thalamus of one side, in young rabbits, and subsequent examination with the ophthalmoscope and autopsy. After seven weeks, the ophthalmoscope showed complete atrophy of all the nerve-fibres with double contours in the retina of the *opposite* eye, and perfect intactness of these in the corresponding eye. The post-mortem examination confirmed the ophthalmoscopic observation. The author ignores the existence of inter-cerebral and inter-retinal commissural fibres. According to this arrangement of the fibres, lesions affecting the chiasma in front must produce temporal hemiopia (loss of power of the inner half of each retina); lesions behind the chiasma, nasal hemiopia (loss of power in the external half of each retina); lesions in the fissure of Sylvius, lateral hemiopia; while total or partial amaurosis of one eye may be caused by disease of the opposite optic tract in any part of its length, or, of course, by disease of the optic nerve of the same side.—*Centralblatt f. d. Med. Wissensch.*, No. 22.

Artificial Respiration in the Treatment of Snake-Bite (*Indian Medical Gazette*, May 1, 1873).—Mr. Vincent Richards details some interesting experiments on the above subject, and comes to the following conclusions:

When snake-poison is injected into the areolar tissue, as is usual in the case of a bite, absorption gradually takes place. When the poison reaches the lungs, it appears to excite the pneumogastric nerve, and through the medulla and spine the phrenic and intercostal nerves, leading at first to an accelerated action of the respiratory muscles, and afterwards, as a larger quantity of poison circulates through the lungs, and the stimulus to the nerve-centres is augmented, to paralysis of them. Vomiting, which is a frequent, though not constant, symptom, probably arises from this irritation of the pneumogastric nerves. The medulla oblongata and spine are, indeed, primarily affected, and it is only as a secondary effect that the cerebral ganglia and cerebrum are involved. Presuming this to be the physiological action of the poison, it follows that a person fatally bitten dies from asphyxia produced by paralysis of the motor respiratory nerves. The indication of cure, provided the effect of the poison on the nerve-centres is not permanent, is therefore artificial respiration. Moreover, if elimination of the absorbed poison can go on, as appears to be the case, there is good reason to hope for favorable results. When, however, the amount of poison injected is overwhelming, little can be expected from the treatment. That an animal may be affected even to convulsions, and yet ultimately recover without treatment, has already been shown; and when the quantity of poison injected into the areolar tissue would, under ordinary circumstances, be just sufficient to kill, artificial respiration, if properly maintained, might frequently save life, as it does in the case of curara-poisoning.

The Action of Aconite on the Sympathetic Nerve (*The Practitioner*, July, 1873).—Dr. Frederick Bagshawe relates some cases in which the local use of

linimentum aconiti about the face and neck produced heat, swelling, and redness of the skin, injection of the conjunctiva, great dilatation of the pupil, and much-impaired sensibility. The tongue was projected somewhat to the affected side. The threefold office ascribed to the sympathetic nerve was decidedly interfered with.

1. Sensation was blunted in the parts supplied by the nerve.

2. Nervous control over the blood-vessels was withdrawn.

3. Motive power was reduced.

The small quantities of the drug capable of being absorbed through the skin seemed to attack the nerves and muscles directly in their neighborhood, and to show little disposition to enter the general current of the circulation and so paralyze the heart.

In cases of fatal aconite-poisoning the symptoms usually occur in this order:

1. Tingling and numbness of the tongue and throat, soon extending to the stomach, with local sensations of heat.

2. Failure of the circulation, evidenced by cold extremities, cold sweats, great feebleness, etc.

3. Dilatation of pupils; sight dimmed.

4. Fatal syncope.

It is to be observed that, while most of the phenomena agree well enough with the idea of sympathetic paralysis, dilatation of the pupil is exactly the reverse of the condition of iris produced in Bernard's and Brown-Séquard's experiments.

Operation for Secondary Divergent Strabismus.—Dr. Hasket Derby relates (*Boston Med. and Surg. Jour.*, July 10, 1873) a case of divergent strabismus which had existed for thirty years, and was the result of an operation for convergent strabismus. A complete cure was effected in the following manner:

The patient was etherized, and, beginning at the inner edge of the cornea, a broad flap of conjunctiva was dissected back towards the caruncle, a distance of six lines. Care was taken to thoroughly remove the subconjunctival tissue, in order that nothing might prevent the healing of the muscle at its new point of insertion. The internal rectus was found reduced in size, attached far behind and somewhat above its old position. It was divided at its insertion, dissected away from its attachments, brought forward and laid upon the cornea, spread out so as to half cover it. In this position it was secured by two sutures through the conjunctiva, above and below the centre of the cornea.

An incision was now made over the insertion of the externus, and this brought into view. A single stout thread was armed with a needle at either end. One was passed into the centre of the insertion, as near the eyeball as possible, and made to emerge through the upper edge of the muscle. The second was passed in at the same point and brought out at the lower edge. The muscle being next divided, just outside the thread, the eyeball was moved readily in any direction by means of the two threads gathered into the hand of the operator. It was rotated as far inward as possible, so that the edge of the cornea touched the caruncle, and the ends of the thread secured firmly to the opposite temple. A compressive bandage was applied.

A New Symptom of Pyelitis (*Il Morgagni*, February and March, 1873).—When any alteration is found in the urine, it is important to know whether the lesion which is its cause is seated in the bladder or in the kidney. Many diagnostic signs of pyelitis have been given, the most important being the presence in the urine of the epithelial cells which line the pelvis and the calyces of the kidneys. An excess of albumen with a normal quantity of urea and an acid reaction of the urine are, according to Oppolzer, the most reliable symptoms. M. Pascalucci, impressed with the defectiveness of our means of arriving at a diagnosis, has sought a more certain sign, and asserts that he has discovered it in the condition of the crystals of nitrate of urea. After having examined the epithelium contained in the urine, he adds some nitric acid, in order to form nitrate of urea, and then examines the precipitate microscopically. If the catarrh is limited to the bladder, the crystallization is normal; that is, the crystals assume the form of hexagonal, rhombohedric scales, arranged like tiles on a roof. In pyelitis these scales are irregular, bevelled on the angles, and often have the shape of little brushes, brooms, or feathers. This symptom, if constant, would be more important than any with which we are now familiar.

Subperiosteal Excision of Hip-Joint.—Mr. Croft (*Lancet*, June 14, 1873) read notes of a case of hip-disease in a boy seven years of age, the result of a fall. A large abscess had formed on the outer side of the thigh below the joint; it was freely incised, but, as only temporary relief was thus obtained, an excision of the joint was rendered necessary.

A slightly curved incision, three inches long, with its centre opposite the top of the great trochanter, was made down to the bone, dividing the periosteum. The soft parts were then turned aside, and the periosteum cut across at right angles to the first incision, just below the level of the small trochanter. With the bistoury, the transverse division of the periosteum was carried round all but the inner and back part of the bone. Then, with a periosteal elevator, like Dr. Sayre's, the periosteum was easily peeled back. An attempt was also made to detach the muscular insertions from the great trochanter, but this was not effected without the use of a knife. The top of the femur was sawn off with a chain saw, just below the small trochanter. This mass having been turned out by the elevator, the acetabulum was freely exposed. Five roundish sequestra, varying in size from a small to a large pea, were picked out of the floor of the space. The portion of femur removed consisted of the head, neck, and two inches of the shaft, measuring from the top of the great trochanter. The wound was partially closed by sutures. After the operation the limb was kept at rest, and extended by means of a bracketed long outside splint, or extension by weight. At the end of four weeks, passive motion was commenced. Eighteen months later, the patient was enjoying perfect health, and the femur which had been operated upon was scarcely an eighth of an inch shorter than its fellow.

The Etiology of Typhus.—Dr. Amédée (*The Practitioner*, June, 1873), in a memoir entitled "Typhus des Arabes," records some interesting facts connected with the terrible epidemic of typhus in 1868, and, among other things, gives an additional illustration of the development of the disease under conditions in which the persons apparently exciting it were not themselves in the first instance its victims.

An ancient military prison in the Rue Salluste, Algiers, had been converted into a house of refuge for the starving Arabs brought in from the environs of the city. These unfortunates were in an incredible state of wasting and anæmia, covered with rags and vermin, and gave off a peculiar overpowering odor; but they were free from typhus.

All at once, in five or six houses adjoining the prison, very grave cases of typhus appeared. Among them the following is cited:

A young baker, twenty-two years of age, convalescent from typhoid fever, and at his first going out, passed through a group of mendicant Arabs waiting for the distribution of food. He stopped a few moments to observe them. Three days after he was seized with

typhus complicated with epistaxis, confluent petechiæ, and intense delirium and other nervous disturbances, in the midst of which he succumbed after a few days' illness.

Succedanea of Quinine.—Dr. Angelo Crociani (*Imparziale de Firenze*) was led to try various succedanea of quinine on account of the high price of the drug, its adulterations, and chiefly the repugnance evinced to it by the inhabitants of Val-di-Chiona, where he practises. After various trials, the drugs which succeeded best, and which he now advocates, were iodine and sulphur. According to Dr. Crociani, the success of both these drugs is due not to any antiperiodic action, but to their antizymotic properties, thereby admitting the influence of morbid ferments and the presence of cryptogamic organisms in paludal fever. Both drugs were successful in cases where quinine and arsenic had failed. The author relates four cases of tertian ague in which sulphur succeeded, and eight cases cured by the use of iodine. The sulphur was generally administered as follows: an ounce divided into four doses, to be taken during apyretic intervals. In one case two doses were given the same evening; the following day the fit was much less intense, and as soon as it was over the patient took the two remaining doses, and entirely recovered. As to the iodine, after previous purging, ninety drops of the tincture, with three ounces and a half of strong infusion of quassia, were given, one-half the day of the fever and previous to the fit, the other half on the following morning.—*Lancet.*

Pseudo-Hypertrophic Paralysis.—Mr. Hutchinson exhibited a case of this disease at the London Hospital, and drew attention to the following features as its diagnostic points:

1. That its subjects are almost invariably young.
2. That although there is often the history of weakness of the lower extremities in infancy, and late walking and "waddling" gait after they have learned to walk, the aggressive disease never really dates from infancy.
3. That the paraplegia is slow and painless, and in its early stages not attended by any increase in the bulk of the muscles.
4. That the calves of the legs, the muscles of the lumbar spine, and the buttocks are the parts in which the tendency to overgrowth is first shown.
5. That simultaneously with the overgrowth of the parts mentioned, there is usually progressive weakening of the muscles higher and higher up.
6. That the sphincters do not suffer, that constipation does not occur, and that the nerve-supply to the iris is not altered.
7. That there are no contractions of the affected muscles.—*Lancet*, July 12, 1873.

Treatment of Gastralgia.—For the treatment of gastralgia Dr. Joulin strongly advocates (*France Médicale*, June 7) a combination of ice and external revulsants. The chief points of the plan may be summed up thus:—1. A poultice of ice for ten minutes, morning and evening, to the pit of the stomach. 2. A mustard plaster to the same spot immediately on removing the ice-poultice, to be kept on as long as possible. 3. Pounded ice, to be taken morning and evening, a tablespoonful every five minutes for one hour. 4. A mustard bath with two pounds of mustard three times a week. The ice of the poultice is to be chopped up in small bits and enclosed in an india-rubber bag. The ice taken internally must be pounded with sugar, or it may be prepared to the taste of the patient. It must be swallowed down suddenly, and not kept in the mouth, as it would lose its coldness. If a tablespoonful is too much at a time, several teaspoonfuls may be taken instead. As to the general mustard bath, Dr. Joulin recommends it as far superior to the ordinary warm bath, which weakens, and considers it to be a powerful tonic which affords the best results in nervous women. The duration of the treatment varies according to the intensity of the symptoms, from simple dyspepsia to general neurosis, but the whole treatment must be employed in every case.

Herpes consecutive on Traumatism.—Professor Verneuil distinguishes three kinds of the above:—1. Peripheric herpes, supervening towards the extremity of the diseased nerve (a nerve being wounded in its continuity, herpes manifests itself between the lesion and the terminal development); (2) herpes of neighborhood (*herpès de voisinage*), observed on the strips of surface innervated by the collateral branches of the injured nerve, either through ascension and propagation of the neuritis to those branches, or through reflex action, which it is difficult to admit; (3) distant herpes (*herpès à distance*), situate in a region far from the seat of injury, and which has therewith only an indirect nervous connection, existing exclusively through the ganglia or even the cerebro-spinal centre. Traumatic herpes, according to Dr. Verneuil, is dependent upon the constitutional condition. He also thinks that what is called diphtheria of wounds is perhaps only an herpetic complication at times. On the other hand, he thinks that a reservation must be made touching phlyctenoid erysipelas, as the phlyctens which serve to characterize this sort of erysipelas may often be simply herpetic vesicles circumscribed by cutaneous inflammation.—*Lancet.*

MISCELLANY.

During a botanical exploration of the region around the river Coanza, in Lower Guinea, Dr. Welwitsch's party found their supply of provisions exhausted. The men accordingly went in search of food, with senses quickened by hunger. They were so fortunate as to discover an enormous mushroom, as large as an umbrella, which made soup enough to satisfy the hunger of twenty men. This specimen was the first of the species seen by Welwitsch, but subsequently he often met with it, and learned that these great mushrooms are brought to market at Pungo Adongo by the natives, and there sold at from one to three pence each, according to size.—*Popular Science Monthly.*

The staff of the Harrisburg Hospital, seeing in the daily papers the action of the Board of Managers relating to homœopathy, sent a committee to ascertain whether that action would be adhered to; and, after being assured emphatically that the resolution would be enforced, they handed in the following:—

"*To the Board of Managers of the Harrisburg Hospital:*—Gentlemen,—The undersigned respectfully represent that when we accepted the respective positions to which you elected us upon the staff of the hospital, we did so under the impression that the medical and surgical treatment of its patients would be intrusted entirely to our care; as they are to the staff of every regular hospital.

"You have seen fit, subsequent to our acceptance, to pass the following preamble and resolution:

"'*Whereas*, It has been stated that if homœopathic

medicines be procured, attendance will be furnished gratuitously by a homœopathic physician: therefore,

"'*Resolved*, That a case of homœopathic medicines be procured, at a cost not exceeding $100, so that if any patients wish to be treated under that system it may be done by a physician of that school.'

"Whilst we should cheerfully and gratuitously have served the interests of the institution to our best ability, as its sole staff, we cannot consent to act in a hospital wherein it is proposed to sanction practice so utterly at variance with that in which we have been educated.

"We, therefore, hereby respectfully tender our resignation.

"H. O. Whitman, M.D., Consulting Physician.

"George Dock, M.D., Consulting Surgeon.

"G. S. Hursh, M.D., John W. Hay, M.D., Visiting Physicians.

"H. L. Orth, M.D., A. C. Renninger, M.D., Visiting Surgeons.

"John C. Hutton, M.D., Hugh Hamilton, Dispensary Physicians.

"HARRISBURG, PA., August 6, 1873,—3 P.M."

[The committee who waited upon the attending manager volunteered, by instruction of the staff, to continue their services until the manager could make suitable arrangements for the care of the patients.]

"*To Drs. Whitman, Dock, Hay, Hursh, Orth, Renninger, Hamilton, Hutton:*—GENTLEMEN,—The Board of Managers of the Harrisburg Hospital, at a meeting this day, accepted your resignation as the medical staff of said hospital.

"With great respect,

"Your servant,

"A. BOYD HAMILTON,

"*Secretary.*

"HARRISBURG, PA., August 7, 1873."

"At a special meeting of the Dauphin County Medical Society, held this evening, the following action was taken:

"*Whereas*, The Board of Managers of the Harrisburg Hospital, having elected a competent medical staff of regular physicians, did, by the following resolution, passed subsequently to the said election,—viz.:

"'*Whereas*, It has been stated that if homœopathic medicines be procured, attendance will be furnished gratuitously by a homœopathic physician: therefore,

"'*Resolvèd*, That a case of homœopathic medicines be procured, at a cost not exceeding $100, so that if any patients wish to be treated under that system it may be done by a physician of that school,'—attempt to introduce into the hospital a pretended system of medicine: therefore,

"*Resolved*, That we cordially approve of and endorse the action of Drs. Curwin and Reily in resigning their positions upon the Board of Managers of said hospital.

"*Resolved*, That we also most cordially approve and endorse the manly and high-toned professional action of the medical staff in promptly resigning their positions in said hospital.

"*Resolved*, That we individually and as a society hereby pledge ourselves not to accept any position in said hospital unless each and every member of the late staff of the hospital be re-elected by the managers of said hospital, and all other practice but that of the regular school of medicine be ignored.

"R. H. SEILER, M.D.,

"*President.*

"HARRISBURG, PA., August 7, 1873."

GASTRO-INTESTINAL INSUFFICIENCY.—The editor of the *Nashville Medical Journal* thus discourses in regard to those who affirm that the cholera at Nashville was merely a local outbreak of gastro-intestinal disease from filth: "May, 1873, sent to the 'bivouac of the dead' seventeen remains of mortals, and June of the same year sent more than one thousand! 'Oh, the filth of Nashville!' cry out ring-makers, job-hunters, croakers, and repeaters. Tell us, O ye faithful, if there was not as much filth in Nashville on the 9th day of July, with two burials, as on the 20th of June, when a hundred of our people were buried out of our sight. How is it that filth is so potent upon the one day and so impotent on the other? 'The scavengers,' you say, 'and a hundred carts, *ad interim*.' Bah! A thousand ants upon the Augean stable! Are we to repeat the stormy medical annals of 1793, and make a cart-load of rotten coffee on the quay the cause of grass growing on the streets of Philadelphia, and the seaming and ploughing of her cemetery by the remorseless application and punctuality of her undertakers? Did Nashville do this *per se?* Can she do it? If so, then farewell Nashville—pleasant Nashville—polite, elegant, cultivated Nashville."

DR. LYON PLAYFAIR has no very high opinion of the value of English university education. He said recently in Parliament that "a Scotch university teaches a man how to make a thousand a year, an English university how to spend it."—*Popular Science Monthly.*

THE FIRST OPERATION OF LITHOTRIPSY IN AMERICA.—Dr. Alban Goldsmith, the first assistant to Dr. McDowell in many of his ovariotomies, made the first operation of lithotripsy ever performed in Kentucky or in the United States. It occurred in 1829.

WE understand that Mr. Jonathan Hutchinson has sent in his resignation as surgeon of the London Hospital, a post he has held for the last ten years.

IN consequence of the appearance of cholera at Venice, passengers for India or Egypt are advised to avoid that city.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM AUGUST 12, 1873, TO AUGUST 18, 1873, INCLUSIVE.

TILTON, H. R., ASSISTANT-SURGEON.—Granted leave of absence for thirty days, to take effect September 1, 1873. S. O. 151, Department of the East, August 11, 1873.

LAUDERDALE, J. V., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Wadsworth, N. Y. H., during absence of Assistant-Surgeon Tilton. S. O. 151, c. s., Department of the East.

SATURDAY, AUGUST 30, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF TRAUMATIC MÉNIÈRE'S DISEASE.

Delivered at the University of Pennsylvania,

BY DR. H. C. WOOD, JR.

GENTLEMEN,—The man before us to-day presents himself partly for treatment, but more especially for an opinion as to whether there is or is not a pistol-ball within his cranium. The history which he gives of himself is as follows. Three months ago, whilst sitting talking with a friend, he was wounded by a pistol accidentally discharged in the hands of the latter. So near was he to the muzzle of the weapon that, as you can yet see, his face was covered with the grains of powder, many of them being driven into the skin. The direction of the ball was believed to be horizontal or a little downwards, and you can readily perceive, just above the left corner of the mouth, the scar of its entrance. He did not become at once unconscious, but for the twelve hours after the accident was, so far as I can judge from his description, in a semi-unconscious condition. The symptoms from the local injury were severe; inability to talk or to eat anything except liquids, with great swelling and soreness about the mouth, persisted for about two weeks, and with such intensity as to overshadow all other symptoms. It is important to mention that at the time of injury there was slight but persistent hemorrhage from the right ear, and that shortly afterwards he noticed that he was deaf on the same side.

Two or three weeks after the reception of his injury, he was sufficiently recovered to sit up in bed and to attempt to shave himself. It was then that he first noticed an inability to make the finer movements with the right arm, and also a decided loss of power in executing the coarser ones. He was entirely unable to shave himself, and has been so ever since. On attempting to walk, he found that his right leg was very decidedly weaker than its fellow.

The present condition of the man may be summed up as follows: Complete deafness of the right side, as shown by holding a watch against the ear; speech somewhat thick and staggering; pupils alike on both sides, and normal; optic disk normal; no headache; pains of the right arm and leg decided; the muscles flabby, but responding sluggishly to electricity.

Evidently the first point in the case to be determined is as to the position of the ball, whether it is or is not inside the skull.

As incomplete hemiplegia exists, you might at first glance be tempted to believe that the brain-substance had been wounded. Notice, however, that the paralysis is far from complete, and especially that it is upon the side of the injury. From the direction of the shot, it would seem impossible that the ball could have crossed to the opposite side before entering the brain; and the occurrence of the bleeding from the right ear at the time of injury demonstrates that this did not happen. As decussation of the motor fibres of the brain takes place first in the medulla oblongata, it is evident that no pistol-ball could produce a brain-wound which should in its turn induce a paralysis of the same side of the body without causing more serious symptoms than have existed in the present case. A gunshot wound of the medulla is necessarily fatal. It seems to me to follow from these considerations that the loss of power in the arm and leg of this man is not due to an injury of the brain-substance. The absence of headache, with the perfectly normal condition of the optic disk, appears to me inconsistent with the idea of meningitis; and I am forced to conclude that the paralysis is not of central origin, and that the ball did not find its way into the cranial cavity. Further, it would appear most probable that the missile is imbedded in or lies near to the petrous portion of the temporal bone, since the almost complete deafness and the persistent bleeding from the ear at the time of injury showed that the bone alluded to was fractured.

No doubt many of you are now inquiring within yourselves how the loss of power of the muscles of this man is to be accounted for if the nerve-centres were not affected, and what fracture of the petrous process has to do with the paresis. My answer to the first inquiry is, Wait a moment; to the second, Much. As long ago as 1842, the great physiologist Flourens discovered that lesions of the semicircular canals in the lower animals are followed by disturbances of equilibrium and of motion, and that if the horizontal canals be wounded rotary movements *towards the injured side* occur when the animal attempts to walk.

One of the chief complaints of our patient is, that he staggers; that at times in walking the streets his gait has been so uncertain that his acquaintances have thought that he was drunk. This staggering, he states, is much worse at night than in the daytime,—in the dark than in the light. You see now when he walks with his eyes open he is quite steady; but watch him as he attempts to walk around the amphitheatre with his eyes bandaged, and see how he staggers. Notice, if you please, that the staggering is towards the affected side. The patient asserts that it is always so. As injury to the internal ear will in animals produce very marked disturbances of motility, similar in character to those which are present in the case before you, and as in the patient the history shows that the inner ear was injured, it appears to be a fair logical inference that his symptoms are due to the aural injury. This diagnosis, however, does not rest simply upon experimental physiology for its basis, but has also clinical support.

In 1861, Dr. Paul Ménière described an affection which has since been noted by various observers, and is known by the name of its discoverer. In this disease the patient suddenly falls, unconscious, as if in apoplexy, and, on recovering consciousness a

few moments afterwards, discovers that he is totally deaf in one ear; or else this sudden deafness is preceded simply by an intense vertigo, and not by a complete apoplectiform attack. With this deafness there is almost always tinnitus aurium, or ringing in the ears, which is more or less permanent, and is accompanied by disturbances of equilibrium and staggering, or rotatory movements, towards the affected side.

For an elaborate discussion of the subject, I must refer you to Dr. H. Knapp's paper in the second volume of the *Archives of Ophthalmology and Otology*. It is enough for our purpose to know that the symptoms of this affection have their origin in an apoplexy of the internal ear, in all probability of the semicircular canals. In the same volume of the *Archives*, Dr. G. Brunner, of Zurich, details a case which demonstrates very strongly the relation between apoplectiform symptoms and disturbances of the pressure upon the nervous expansion of the inner ear. Into the inner ear of a lad fourteen years old he suddenly and violently forced air, with the result of producing intense vertigo and temporary hemiplegia, which Dr. Brunner believes to have been upon the same side as the ear acted upon, although, writing from memory, he is not certain as to this.

With a knowledge of these facts, I think you all will agree with me in diagnosing that all the cerebral symptoms in the case before us had their origin in a fracture running through the inner ear, and in prognosing that, as the local disturbances caused by this subside, the power will return to the arm and leg. With the idea of hastening the removal of any exudation which may exist, I will give the man small doses of Donovan's solution, and will see that the health of the affected muscles is restored by faradization, kneading, and the other usual local measures.

[Under this treatment the man recovered the full use of the affected limbs, and ceased almost entirely to stagger in about six weeks. The hearing improved slightly.]

ORIGINAL COMMUNICATIONS.

A CASE OF UNSUSPECTED PUNCTURED WOUND OF THE BRAIN-SUBSTANCE WITH SUPPURATIVE ENCEPHALITIS.

BY W. H. PARISH, M.D.,

Late Resident Physician to the Philadelphia Hospital.

THOMAS B., æt. 64 years, was discharged from the drunkards' ward of the Philadelphia Hospital on September 24, 1871, and on the 2d of the following month was again received into that ward; it now being his twelfth admission to the house. Shortly after his admission he was seen by one of the physicians, who, not considering him sufficiently under alcoholic influence to render it necessary that he should be kept in that ward, and observing a small wound of the temple, had him transferred to the surgical ward. There, on the 3d he stated to the interne that there was nothing the matter with him, and that he wanted to be sent to the out-wards. The interne, finding him walking around, perfectly rational, free from any suffering, with only an apparently very slight integumental wound, and asking to be transferred, had him sent from the crowded surgical wards to the out-wards. There the officer in charge placed him among those capable of doing light work, so entirely well did he appear.

The man made no complaint until the afternoon of the 5th, when he took to his bed, saying that his head ached and that it was hard for him to breathe.

About 10 o'clock of that night the physician of that apartment was sent for. The patient was then in a very delirious state, and gave no answer to any question. Early on the following morning he was again taken to the drunkards' ward.

On the 6th, about 9 A.M., he was seen by Dr. Eshelman, and, at the latter's request, by myself, for the first time.

The patient was then motionless and speechless. The respirations were slow and stertorous, with puffing of the cheeks on expiration. The pupils were fixed, the left contracted, the right about normal in size. There were some oscillations of the eyeballs. Touching the conjunctiva produced no muscular action of the lids. The pulse at the wrist was slow and full. The bladder, being distended, was emptied by catheterization. We then observed a small wound of the right temple, it being partly concealed by hair matted with pus; but, owing to the obviously moribund condition of the man, it was not further examined. An enema unloaded the rectum. Some milk-punch was given, deglutition being accomplished, but with difficulty.

The state of complete coma continued, without convulsions, until 11 P.M., when death occurred. At no time prior to the coma was there complete paralysis of any muscle.

Fifteen hours after death, in the absence of Dr. Eshelman, I made the autopsy. There were no bruises or other marks of injury on the person, excepting the small wound of the right temple. This was about half an inch in length and situated about one inch in front of the tragus. The cranial cavity was first examined. Passing through the squamous portion of the right temporal bone, immediately above the zygomatic arch, was found the small blade of a pocket-knife, it entering the middle cerebral lobe and being directed transversely and somewhat posteriorly. The blade measured about two inches, and its shoulder was in contact with the external plate of the bone. The blade had not been broken, but wrenched from the rivet. The portion external to the cranium was completely concealed by the integument. There were no evidences of hemorrhage within the cranial cavity. The base of the brain was covered with a thick purulent fluid. The meninges of the vertex presented no signs of inflammation.

On the 9th the body was seen by the coroner's physician. I then continued the examination of the brain. The knife had entered the middle lobe from the side, piercing apparently through to the middle cornu of the lateral ventricle. Around the blade the brain-tissue had broken down, leaving the cavity of an abscess. The tissue around was softened, and presented the diffused pinkish appearance of encephalitis with œdema. The microscope exhibited numerous granular fat-cells—the "globules of Gluge"—throughout the inflamed cerebral substance, this being apparently quite limited to the middle lobe. The two lateral, third, and fourth ventricles contained a few ounces of a turbid purulent fluid. At no point was there to be found lymph undergoing organization.

A triangular portion of the calvaria, including the knife-blade, firmly impacted, was sawn out. The bones were of about the usual thickness. There was no depression of the internal plate, and no lines of fracture radiating from the point of puncture.

Remarks.—On the day of the man's admission to the hospital it was noticed that the wound of the temple was in a state of suppuration, and consequently must have been produced several days previously. Most probably, then, the blade had remained imbedded in the brain-substance for six or more days prior to his death, or even to the first manifestations of cerebral derangement. The wound having been inflicted while the man was in a state of debauch, no evidence as to the mode of its production could be obtained. It is common to meet with slight contusions or other wounds on those subject to debauchery, which under mere hygienic hospital regulations get well of themselves. In this instance, prior to the evening preceding his death, there were no symptoms to awaken even a suspicion that this would prove an exceptional case.

The patient continued to walk around, rational, yet not aware that there was anything wrong with his head. When the suppurative encephalitis became so extensive as to involve the basilar meninges, producing irritation and, from the accompanying exudation, compression of the nerve-roots, pain, severe and intense in its character, became the earliest and one of the most important symptoms. As the roots of the pneumogastrics became implicated, difficulty of respiration presented itself. Soon the manifestations of active psychical derangement evinced that the entire encephalic mass was sympathizing with the intensity of the inflammatory action, though this was confined to a limited portion of this nervous centre. As the exudative material now rapidly accumulated, and the congestion with œdema of other portions of the brain became more marked, complete coma from compression supervened.

The symptoms on the 6th were very similar to those of apoplexy, but the unsymmetrical condition of the pupils pointed rather to a laceration of the brain-tissue with compression, than to simple compression alone. In laceration without compression the pupils are usually contracted; as compression complicates the case, we generally find one contracted, the other dilated. Suppurative encephalitis is usually due to traumatism. It also arises from disease of a cranial bone, or may have its origin in a necrosed spot, or may show itself in pyæmia, typhus, or other low diseases, or it may be idiopathic. It is much more common in adults than in children, being the reverse of meningitis in this respect. It never involves all the cerebral mass, the inflammation being confined to one or more localized spots, unless there is such an affection as *cerebria*,—the existence of which does not seem to be satisfactorily established.

Among the symptoms frequently present, though apparently not in this case, are twitchings, rigidity or paralysis of isolated muscles, and general convulsions.

Treatment may at times prevent suppuration, but to effect this it must be strictly antiphlogistic. After the formation of pus, or after the actual softening of a portion of the brain-tissue, treatment is of almost no avail. It is said that in some few exceptional cases an exudative material has encapsulated the softened mass, and that the latter has been in part gotten rid of by absorption, in part changed by calcification.

This case is one of considerable interest, but is by no means unique. Numerous cases are cited in the various surgical works. Sir Astley Cooper instances a case of a girl, through the orbital plate of whose frontal bone the blade of a pair of scissors was accidentally thrust, it entering the brain-substance. The blade was immediately withdrawn, and the girl continued to walk about for ten days, when encephalitis was established, and she quickly died.

Erichsen gives two cases of abscess of the brain following laceration of the pericranium. In the one case there appeared on the tenth day pain in the head, quick pulse, and a hot skin; and on the thirty-ninth day the man died comatose. In the other case there was coma on the ninety-ninth day, and on the third subsequent day death. In each case autopsy showed central abscess without injury of the bones.

From the same authority we also learn that Dr. Cunningham relates the case of a boy who lived twenty-four days with a pistol-breech lying on his tentorium and resting against the occiput; and that Dr. O'Callaghan relates that an officer lived seven years with the butt of a fowling-piece imbedded in his forehead, and in contact with the right hemisphere with the exception of an intervening adventitious membrane.

The most remarkable case of all, however, is the one reported by Prof. Bigelow in 1850. In that one an iron bar, three and a half feet in length by one inch and a quarter in diameter, passed through the anterior portion of the cranial cavity. In sixteen months there was complete recovery, save the loss of vision in the eye of the injured side.

There are at least three instances in which the surgeon has boldly incised the healthy brain-substance to reach a diagnosed cerebral abscess, and in every instance with the success of evacuating the contents and of improving the condition of the patient. These operators were Dupuytren, Delmot, and Prof. Pancoast.

The question naturally presents itself, Would the termination of the case that we have reported have been different had the nature of the injury been ascertained soon after its infliction and the foreign body been immediately removed?

A wound of the cerebral substance occurring in the aged and in those subject to a state of confirmed alcoholism, the chances against a favorable termination are much enhanced; and most probably the injury was an inevitably fatal one, even had circumstances permitted the most prompt and judicious treatment.

The subsequent coroner's investigation threw no light upon the production of this wound. The position of the injury, and the force which must have been used to accomplish it, would seem to indicate that its infliction was scarcely possible by the hands of the man himself, and it was, therefore, almost certainly done by some one else in a drunken brawl.

EYES OF DIFFERENT COLORS IN THE SAME INDIVIDUAL.

BY JOHN STOCKTON-HOUGH, M.D.

THE writer has recently seen quite a curious and perhaps very unusual phenomenon,—viz., eyes of different colors in the same animal. Two entirely white male cats, brothers, of the same pregnancy, were alike in every particular save one, and that was in the color of the eyes (irides). One cat had both eyes of a corn color; the other had the left eye corn-colored, and the right a very light blue in color. The effect of this difference in color was so striking as to attract my attention to them when I was passing the open doorway in which they were standing. I did not learn any particulars concerning the color of the father's eyes, but the mother had both eyes of the same color.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. R. J. LEVIS.

Reported by JOHN B. ROBERTS.

RE-FRACTURE OF DEFORMED CALLUS IN A CASE OF BADLY-UNITED FRACTURE OF THE FEMUR.

DANIEL G., a sailor, aged 17 years, while on a voyage from Liverpool, fell from the mizzen-topsail yard, a distance of seventy feet, striking on the railing over the cabin. He sustained a fracture of the right femur, and a double fracture of both bones of the right forearm.

The mate of the vessel, acting as surgeon for the occasion, rudely bound splints to the broken limbs, but used no means for keeping up extension on the thigh. While at sea, the boy became delirious, and tore the splints and bandages from his leg, so that the fragments were not kept in apposition, and great deformity resulted. The upper fragment of the femur was tilted upwards and rotated outwards by the action of the psoas and iliac muscles; and union consequently took place with the bones in an angular position.

On his admission to the hospital, which was just five weeks after the injury, there was great shortening, angular deformity, and a large amount of irregular callus. The right thigh was found, upon measurement, to be three and a half inches shorter than the left.

Hoping that complete consolidation of the callus had not taken place, the resident surgeon attempted to effect extension by the traction of a heavy weight continued for several days, but without success. As the difference in the length of the two limbs was so much that great lameness must necessarily ensue, it was determined to re-fracture the deformed callus, and to endeavor to effect a cure without much deformity.

After more than six weeks from the receipt of the original injury, a splint was bound along the leg and thigh up to the deformed union, to make the knee rigid, and to give a powerful leverage. The knee of the operator was placed as a fulcrum on the most salient point of the deformity, and the callus was broken up by leverage of the limb and splint. Extension was then made by manual force, and was afterwards continued by means of a weight of twelve pounds applied by adhesive straps, as in ordinary treatment of fracture of the thigh. The amount of shortening was reduced to three-quarters of an inch; and this will probably decrease under the continued weight extension. The patient is now doing well, and there is every prospect of his having a useful limb.

The case illustrates how firmly a mal-apposition may be consolidated in a period of six weeks, and how by re-fracture and extension the most of the shortening and deformity may be at once overcome.

INJURY OF SPINE, PROBABLY FRACTURE—PARALYSIS—DEATH OF THE PATIENT.

A laborer, aged 40, was digging a well, when the rope by which the earth was raised to the surface parted, and the loaded bucket, weighing one hundred and seventy-five pounds, fell upon him from a height of thirty-five feet. The tremendous blow received on the head forced the spinal column into extreme anterior flexion; and at the limit of flexibility the spine received a severe strain, or was fractured.

The portions of the spinal column which most generally receive the greatest injury in such form of indirect violence are the points where the greatest amount of flexibility meets with resistance. The points where the flexibility meets inflexibility, and where there is the greatest latitude of motion, are at the cervico-dorsal and dorsi-lumbar articulations; and experience shows that these localities almost universally suffer the most. The position of the injury in this case is at or near the dorsi-lumbar junction, where it is almost always found, and, as a consequence, the man had complete paralysis of motion and sensation of the body and lower extremities below the umbilicus, and was unable to void the contents of the rectum and bladder. He breathed by the diaphragm and intercostals, without any aid from the abdominal muscles.

The gravity of spinal injury is in proportion to its position high up in the vertebral column. Should inflammation extend up the cord, the intercostal muscles would be paralyzed next, because the phrenic nerve, which goes to the diaphragm, comes off from the third, fourth, and fifth cervical, while the intercostal nerves are derived from the dorsal branches of the cord. The patient, however, would not necessarily die, when even the intercostal and abdominal muscles were paralyzed, for there have been cases in the hospital where men have lived a week breathing by the diaphragm alone, or with possibly the aid of the serratus magnus anticus; though it would seem that respiration cannot be kept up very long solely by the action of these muscles.

The abdomen was distended and tympanitic, on account of the want of tonicity and pressure of the abdominal muscles, and probably also because the paralyzed state of the lower bowel prevented the expulsion of flatus. Dr. Levis stated that, in severe spinal injury, for the first few days the bowels are obstinately constipated, and there is retention of urine in the bladder necessitating the introduction of the catheter, but that the sphincters soon become so entirely relaxed that urine and fæces are voided without the control of the patient.

The diagnosis of fracture in this case was not certain, as there was no marked evidence of displacement, and shock or violent sprain by anteflexion would be sufficient to produce the paralytic symptoms. It was found that there was some sensation of the integument a short distance above the umbilicus; but there may be sensitiveness of the skin when the underlying muscles are paralyzed. Dr. Levis said he had seen an instance of sensitiveness of the skin on the front of the chest in a case of fracture of the spine high in the dorsal region, which is readily explained, as branches of the superficial *cervical* plexus descend over the front of the thorax.

The only treatment pursued in the case was to let the patient lie in the supine position on the bed, which acts as a splint, supporting the injured parts and giving the patient the most comfort. In order to prevent, as far as possible, the occurrence of bed-sores, a water-bed

was employed; but this only delays their development in a measure, for since the innervation of the parts is interfered with by the injury of the spinal cord, the least continued pressure on the heels and sacrum forces the blood from the capillaries, and sloughing invariably follows.

The region of insensibility, as tested by a sharp point touching the skin, was very evidently increasing, and one week after the receipt of the injury the patient died, probably from inflammation and effusion up the course of the cord, and interference with the innervation of the respiratory muscles, which is probably the most frequent cause of death in spinal injury.

THE RADICAL TREATMENT OF HYDROCELE BY INJECTION OF CARBOLIC ACID.

A man came to the hospital suffering from a hydrocele of the vaginal tunic of the testicle on the right side, which he stated first began to trouble him a year previous. Six weeks before his admission it had been tapped, and more than a pint of fluid was drawn off, but it rapidly re-developed, and he accordingly presented himself for radical treatment.

As the ordinary mode of treating hydrocele by injecting tincture of iodine into the sac is sometimes unsuccessful, and at other times is followed by an excessive degree of inflammation, and even by suppuration, it was determined to employ carbolic acid as an irritant, which would, it was believed, excite sufficient inflammatory action, and yet, as it checks the formation of pus when externally applied, would have a tendency to limit the inflammation in the sac within the degree of suppuration.

After the serous fluid, which amounted to a pint, had been drawn off by the trocar, the operator injected into the vaginal tunic two fluidrachms of a solution of carbolic acid in glycerin, in the proportion of one part by weight of crystallized acid to two of the menstruum. He then, by manipulation, brought the fluid in contact with every portion of the serous surface, in order that the approximated sides of the sac might be rendered adherent by lymph thrown out upon the supervention of plastic inflammation. The patient did not experience any pain whatever from the introduction of the fluid, such as is the case when tincture of iodine is injected, and which is severe and extends along the course of the genito-crural nerve. It was thought that this painlessness of the procedure might be due to the fact that carbolic acid is capable of inducing local anæsthesia.

At the end of twenty-four hours the tumor was quite large, but had rather a doughy feel, and there seemed to be more inflammation present than generally exists one day after the usual iodine injection has been used; but the swelling was neither painful to the patient nor very sensitive to pressure.

The remarkable feature of the case is the almost entire absence of pain in this method of treating hydrocele.

Carbolic acid seems theoretically to meet all the requirements of the radical cure of hydrocele; but it will require continued experience to determine the practical value of this new method of treatment.

CASES OF OVARIOTOMY.

BY WASHINGTON L. ATLEE, M.D.,
Of Philadelphia.
Reported by J. Ewing Mears, M.D., of Philadelphia.

CASE 244.—*Multilocular ovarian tumor accompanied by ascites—Paracentesis abdominis performed forty-seven times—Three thousand two hundred and eighty-eight pints of fluid removed during a period of three years—Incision five inches in length—No adhesions—Recovery.*

October 12, 1871, Dr. Atlee visited Miss M. A. A., at the request of Dr. B. F. Hamilton, of Emlenton, Venango County, Pennsylvania. The patient was forty-four years old; menstruation commenced at the age of thirteen, had always been regular, and had never been painful until she became dropsical.

Dr. Hamilton gives the following history of the case: He saw Miss A. October 15, 1868, in consultation with Dr. Wallace, of Brady's Bend, at which time he found the abdomen enormously enlarged, and learned from the patient that the enlargement was first noticed four years before this visit. She also stated that about one year ago the wall of the abdomen gave way at the umbilicus, permitting about one gallon of fluid to escape; through this opening the fluid discharged for several days. The general health of the patient was much impaired; there was great emaciation; the complexion was sallow; orthopnœa existed; the bowels were constipated, the urine scanty, and digestion was bad. On consultation, it was decided to perform paracentesis abdominis, which was done by Dr. Wallace, removing eleven and one-half gallons of a dark reddish-brown fluid. The operation was followed by symptoms of great prostration, which were relieved by the administration of stimulants.

She was placed upon full doses of quinine and tincture of the chloride of iron three times daily, under which treatment her general health improved, although the fluid began to reaccumulate.

On the 30th of November Dr. Hamilton tapped the patient again, removing ten and one-half gallons of fluid, of the same consistence, but much lighter in color. After the removal of the fluid he detected a solid tumor in the left lumbar region, apparently about the size of an ordinary placenta. As before, her health improved after the tapping.

The fluid reaccumulating, the patient was repeatedly tapped, and up to November 28, 1869, the tumor did not appear to have increased in size. On that day she was seized with a chill, followed by fever, and great tenderness over the entire abdomen, with acute pain at the seat of the tumor. A diagnosis of inflammation of the tumor with peritonitis was made. In eight days the symptoms of inflammation subsided, and the patient convalesced slowly.

January 5, 1870, tapping was performed, removing six gallons of fluid. The tumor was found to be growing rapidly. After this the patient was tapped very frequently, and the tumor continued to increase in size.

Dr. Hamilton states the total number of tappings to have been forty-seven, removing in all four hundred and eleven gallons of fluid.

Ovariotomy was performed, and the patient recovered.

Dr. Hamilton stated to Dr. Atlee that he believed it to be a case of ovarian tumor accompanied by ascites, which statement was confirmed by the operation.

TRANSLATIONS.

SYPHILITIC INFECTION WITHOUT COITUS.

From the German of Professor Lewin.

BY DR. WM. ASHBRIDGE.

(Concluded from page 731.)

6. THAT the more advanced and intense manifestations of syphilis can show themselves in cases in which no mercury has been administered. The physicians who are opposed to the use of this drug in syphilis

are, as is well known, divided into two classes, one of which supports the view that mercury is in a greater or less degree the cause of all tertiary symptoms, while the other asserts that only particular forms of these affections are due to this influence, as in the statement of Barensprung that "the tertiary forms occur especially in those to whom quicksilver has been early and carelessly given," and "it is too much to assert that they [*i.e.*, tertiary symptoms] are entirely due to mercury, for they never occur as the consequence of the treatment alone, but, as they always bear the stamp of the original disease, they must be regarded as the fruits of syphilis occurring in a constitution already injured by mercury."

Although from many sides this accusation against this mode of treatment has been disproved, and especially by the proof by Virchow that the original syphilitic affection, "the hard chancre and condylomata, have the same history of development as the deposits which are looked upon as the distinctive mark of tertiary changes," still, cases like this of children with tertiary affections born from mothers by whom mercury has never been used have a more decided influence in argument.

7. The case of the child of the mother infected by the sore on her lip is an important one in yet another respect. To which parent did it owe its disease? The father at the mother's infection had a specific ulcer upon the lips, which most probably was not an initial lesion, but an erosion or induration of later date, possessing infecting power. Ulcers of this character occur in somewhat advanced syphilis, at least several months after infection. For this reason, there is nothing opposed to the supposition that in this case the father endowed the embryo with syphilis at the time the mother was impregnated, thus furnishing an instance of the infection of the embryo through the seminal fluid of the man, the mother not being infected through this channel, an occurrence probably somewhat rare, asserted as possible by some eminent authorities, but denied by others.

8. That the appearances due to hereditary syphilis in full bloom at the time of birth can gradually enter into a state of latency. In this child, at the time of admission into the hospital, four weeks previous to the date of the lecture, in addition to a well-marked papular eruption on the skin there was also a plentiful crop of pustules of various sizes up to that of a pea; at this time the first-named eruption had faded to a trace, the pustules had dried, and the crusts had fallen. The subcutaneum and the affection of the testicle were undergoing like changes. To prove that this period of latency can extend over a period of years, and thus allow the possibility of a syphilis congen. tarda, the second group of patients—composed of a mother, two daughters, and a grandchild—was presented. The mother, a woman of forty-nine years, of a healthy family, and herself of a good constitution, had been twice married, and was the mother of two children. Up to her twenty-fifth year she had always been healthy; at that time she bore her first, which she suckled herself. Owing to the abundance of her milk she took a second child to nurse, which, as was demonstrated later, was the offspring of a syphilitic mother, was affected with congenital syphilis, and finally infected the breast of its foster-mother, upon which a sore made its appearance. The woman, not knowing the character of the sore, continued suckling her own child, so that it was infected per os. The disease was at once recognized by the physician who was called in, and a careful mercurial treatment was carried out in all three cases. The strange child, the source of the mischief, after some months died; but the infected mother, with her child, after having suffered for some time from severe throat-affections, apparently recovered. It soon became evident that the husband and father was also infected; eruptions quickly made their appearance, going on to the more severe pustular forms, accompanied by nodes upon the forehead. Gradually symptoms of brain-disease came on, which at last rose to such severity that an apoplectic attack resulted; in a soporose state the man was brought to the hospital, where he soon died. At the autopsy (made twenty years before the date of this lecture) evidences of softening of the brain, and clots, both old and new, were found, and in the absence of any other cause for the disease the changes found were adjudged to be due to syphilis. Some time after the death of her first husband the woman married a second time; the second husband being a man who up to that time had been perfectly healthy, but who, shortly after marriage, suffered much from troubles in his throat, and also from rheumatic pains, but was still living and in good health. In the woman the syphilis reappeared several times, leaving marks of its ravages in the larynx and pharynx, as could plainly be seen by the use of the laryngoscope. She soon became pregnant, and by the eighth month was delivered of a child which died from constitutional syphilis at the age of five and a half months. A second child was born, a girl, who was still living, aged thirteen years; she was healthy up to her sixth year, when a pustular eruption appeared, and for the treatment of this she came to Professor Lewin. A temporary cure was effected by a course of mercurial treatment, but after two years an ulcerated form appeared, which continued to reappear at intervals, but gradually assuming a milder type. At this time the girl was to all appearance healthy, and nothing about her attracted remark, except a universal adenitis somewhat pronounced. The history of the elder sister, who was infected from the nipple of her mother, is also of importance. In the throats of both mother and daughter were marks of their former sufferings, and between the two there was observable a striking resemblance. In her sixteenth year this girl suffered from lupus upon her right thigh, accompanied by periostitis upon the tibiæ and forehead, which healed under the use of mercury, but returned at intervals. In her seventeenth year she married a man previously healthy, but who a short time after marriage became ill, and eighteen months later died, after being eight days in the hospital. No autopsy was made; but the death was reported as one from tuberculous meningitis. There was a child from this marriage, which was born three or four weeks before full term and died in fourteen days from general debility. The woman again married, the second husband remaining healthy; the child of this marriage, seventeen months old, although in other respects well nourished, suffered from—1, a universal lichen, presenting the appearance of lichen scrophulosorum; 2, an ulcer upon the right thigh, looking as if due to the ulceration of a syphilitic deposit; 3, an infiltration of the subcutaneous tissues of the right instep, through which could be felt some enlargements of the bones lying beneath.

From the histories of the patients composing this second group the following conclusions were drawn. 1. That the organism of the female can maintain the influence due to syphilitic infection in the most enduring manner. This influence appears, however, to interfere less with the intra-uterine life of the child; for it can come into the world apparently quite healthy; but the germ of future syphilitic disease is planted in the offspring, which may remain latent for years. The second child of the grandmother of Group 2 was born at full term, in good health, and at the age of five years, fifteen years after the infection of her mother, an eruption appeared, the connection of which with syphilis it is not possible to doubt. 2. That syphilis can in some in-

stances be inherited from the maternal side alone. The father of the younger of the two daughters belonging to this group was still living, and in good health. The two husbands of the elder sister were at the time of their respective marriages quite healthy; and although some doubt might exist as to the true nature of the disease to which the first succumbed, still in the case of the syphilitic infant its disease must be ascribed entirely to its mother, as the father was in perfect health. The third group consists of a fifth infant. The mother of this child, in February, 1871, was admitted into the hospital with syphilitic ulceration of the genitals and throat. On the third day after her admission she was delivered of a child, which died at birth. Three years previously she had borne a child which lived in full health. After a course of mercurial treatment the patient was discharged cured, as all the symptoms of syphilis had disappeared. This woman appeared a second time at the hospital two years later, and again, somewhat prematurely, was delivered of a child. The mother upon examination presented pigmented scars upon the legs, and stated that since her first discharge from the hospital she had suffered from ulcers which had been very tedious in healing. From the growth of the hair, nails, etc., the infant was seen to be nearly at full term; on the palms of the hands and the plantar surface of the feet were dark-red spots; on some of the fingers were impetiginous crusts, surrounded by an inflammatory areola; on the forefinger of the right hand was a single bulla. Along the nail of each great toe, having the form of a half-moon, was a spot upon which the skin was wanting, presenting a mummified appearance, and bordered by a line of bright-red tissue, where was apparently an inflammatory reaction. This case of congenital syphilis presented, in addition to the general eruption, a single spot of pemphigus, and especially the affection of the borders of the nails alluded to above, which, so far as is known to Professor Lewin, has not been described. The question could be raised whether the process had been dry during its whole course, or whether this condition was left after a deep-seated bulla of pemphigus, in which the process of mummifaction had followed the first state of the eruption.

The three children whose histories have been given were all vaccinated with humanized lymph; in all three the course was normal, differing in no respect from that seen in the healthy infant, and the lymph obtained from the vesicles could not by a microscopic examination be distinguished from that obtained under similar conditions from a healthy infant. This goes to strengthen the assertion that vaccination takes a normal course in children with congenital or acquired syphilis.

Treatment of Cholera.—Dr. William Henry Thayer believes that in the treatment of cholera the method which promises the greatest degree of success is the administration of calomel in frequently-repeated doses until the discharges lose their characteristic watery appearance, become green or brown, and have a fæcal odor.

Given hourly in ten-grain doses until colored evacuations are produced, its administration is attended with relief of the epigastric distress, with improvement in the pulse, and with restoration of warmth in cases which were running into the stage of collapse.

Dr. Thayer believes that the essential pathology of cholera consists in a blood-change, by which the red corpuscles lose their power of oxygenation and cause a general arrest of the circulation.

He considers it to be highly probable that calomel, acting primarily on the portal system, through the intestinal mucous membrane, relieves secondarily the congestion of the systemic capillaries, thereby arresting the destruction of the red corpuscles, while it eliminates the choleraic poison by the bowels. He concludes from his observations during various epidemics that all nourishment in the first or second stage is hurtful, as no food can be digested; that opium is useless unless at the very outset; that alcohol has no effect in restoring the warmth; that external heat is useless, the warm bath very injurious, and friction of no avail; and, finally, that as near an approach to repose as it is possible to attain, with cold affusion, moderate draughts of water or bits of ice, sinapisms to relieve the cramps, and the continued use of calomel, will give the best results possible for us to obtain. Of thirteen cases seen during the first stage, twelve were treated exclusively with calomel, and recovered, while the one not treated with calomel died.—*The Medical Record*, July 1, 1873.

Intussusception.—Dr. Affleck reports two cases of intussusception in children. 1. A child, aged seven months, generally healthy, had diarrhœa, vomiting, severe retching, and pain, which resisted ordinary remedies. On the fourth day blood passed per anum. Large enemata were at once rejected; no hernia was present; inflation of the bowel by bellows was tried without success; fluid mercury was given by the mouth, but the patient died on the fifth day. On post-mortem examination, an invagination of the ileum into the cæcum was found in the right iliac fossa. The bowel above was greatly distended; below it was pale and empty.

2. The second case was that of a child aged five months, previously healthy. In the course of a diarrhœa, a copious evacuation was followed by a sudden cry, vomiting, retching, and exhaustion; after which no fæces passed, only blood. Nothing was felt in the rectum; there was no hernia; the abdomen was soft. Enemata were at once expelled, but strong inflation with the bellows after two or three minutes *suddenly* overcame the resistance, and the abdomen became tympanitic. Vomiting ceased; a warm bath and castor oil were followed by a free evacuation, and the patient next day was quite well.—*British Medical Journal*, July 26, 1873.

The Influence of Digitalis on the Weak Heart of Typhus Fever.—At a meeting of the Medical Society of the College of Physicians of Ireland, Dr. Grimshaw reported that he had recently used digitalis extensively in the treatment of severe typhus fever, and had come to the following conclusions:

1. Digitalis does not shorten the duration of the fever or influence its characteristic range of temperature.

2. It prevents or lessens delirium, and improves the tension of the pulse, which falls somewhat in frequency during its exhibition.

3. A sudden fall in the pulse-rate and temperature is an indication of danger, and calls for the withholding of the drug.

4. Suitable doses are from half an ounce to an ounce and a half of the infusion every second or third hour, and stimulants should be given in addition if, after twenty-four hours, the digitalis has not produced beneficial effects on the pulse.—*British Medical Journal*, July 26, 1873.

Development of Bone.—Ludwig Steda (Report of the Scientific Association of Riga) has contributed an elaborate memoir on this subject. He endeavors to establish the following: Osseous tissue is formed without division of cartilage, and is a direct transformation from the connective-tissue element. Where bone is preceded by cartilage, as is the case with the long bones, it is always observed that the cartilage atrophies noticeably from the centre, thus permitting the cells of the periosteal layer to penetrate within the shaft, there to undergo true ossification.

PHILADELPHIA
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EDITORIAL.

INSANITY IN ITS RELATION TO CRIME.

THERE lies on the table before us a little book* upon a subject so important and containing sentiments so extraordinary that we propose to make it the subject of an editorial notice. Although it is elegantly written, attractive and forcible in style, and holds the attention of the reader from the first to the last page, yet we deeply regret that it has been produced by a member of our profession. The modern court—the American system of criminal jurisprudence—offers day by day its farces, at which the philosopher might with equal justice laugh or cry. But it is the legal, not the medical, profession which is responsible. Whatever the theory may be, so far as our experience goes, very generally in practice the district attorney looks upon himself as the sleuth-hound set by society to hunt down: in his opinion it is not his place to separate the innocent and the guilty, but to *convict*. Often the medical expert alone stands between him and his victim, and, although honest and capable, is viewed simply as an obstacle in the way, to be cajoled, ridiculed, trapped, browbeaten, and if possible battered into oblivion. Of all the points upon which medical experts testify, no one is more delicate, no one more important, no one the subject of more abuse, than insanity, and for this very reason it becomes the professional man to speak with caution upon this subject; but we cannot refrain from expressing our astonishment that the gentleman chiefly through whose testimony, ophthalmoscopes, and paraphernalia McFarland was acquitted, should now come forward as the advocate of sentiments which would suit the most bloodthirsty Jeffreys.

It cannot be gainsaid that when public opinion is such as to justify murder under certain provocations, murder committed under such provocations will often be justified or condoned by juries upon the plea of insanity. For example, so long as society justifies a man in shooting the seducer of his daughter, so long will juries often find insane the sanest man that does such an act. But this has nothing to do with the merits of the plea of insanity. When a jury has determined to acquit the prisoner at the bar although he be guilty, excuse will not be wanting; if the plea of insanity be insufficient, some other will do as well.

Leaving out of sight these cases in which the jury simply uses the plea of insanity as an excuse for doing what it has determined upon, injustice is, we think, at least as often done in the condemnation of the insane as in the acquittal of the sane.

Like everything that comes from his pen, the book of Dr. Hammond is in many respects very able. The argument that underlies it is most specious, and, having its foundation in truth, puts on the appearance of truth. Yet in our judgment the truth is warped, distorted, mixed with fallacies until it makes an image half clay, half iron, which is but a caricature of justice. Stated briefly, the fundamental idea or argument of the book is,—the individual is nothing, society is everything; the protection of society being paramount, the liberty or life or death of the individual is as nothing when opposed to the general good; therefore, if the individual be insane, unaccountable to God, he is accountable to society, and should be punished,—punished, too, as severely as the sanest!

"Laws do not always rest—in fact, cannot always be based—upon the principles of abstract justice," says Dr. Hammond. "When necessity requires it, both law and equity are set aside, and brute force takes their place." True, in a measure: the fallacy consists in applying this to the treatment of the insane criminals, since no necessity exists for the application of extreme brute force.

"A law, therefore, may be unjust as regards an individual or a few individuals, and beneficial to society at large: it is then a good law." Granting for a moment the truth of this, the same fallacy follows its application as has just been noted. It is not necessary for the protection of society that the insane murderer should be hung. Further,—

* Insanity in its Relation to Crime. By William A. Hammond, M.D. New York, D. Appleton & Co., 1873.

although, since we have not been bred in the law, we would here tread most reverently and hesitatingly,—the conviction is strong with us that the philosophy of law put forth by Dr. Hammond is incorrect. We doubt very much whether a law that is unjust to the individual can be beneficial to society. The moment a law is distinctly perceived to be unjust, men will rise up against it and condemn it, and it can only exist as a law of terror and of military force. In a country like this, where the basis of all law is public opinion, public opinion will sooner or later overthrow such a law.

The chief example which Dr. Hammond adduces of a good law unjust to the individual we hold to be an atrociously wicked law,—not framed for the good of society, but for the good of one individual at the expense of society,—a law for the good of the despot, which, a rag of mediæval feudalism, still clings to the codes of some communities. It is "the attainder of blood," the punishing of the children for the high treason of the father. As must be eventually the fate of all such laws wherever public opinion rules, in this country this "attainder of blood" has been abolished.

The only other example adduced by Dr. Hammond as a just law good for society but unjust to the individual seems to us equally unfortunate. It is the punishing of an individual for breaking a law of whose existence he does not know. So far as criminal cases are concerned, every sane man knows what is, and what is not, a crime; and in regard to ordinances the theory is that the individual must inform himself; and we can see no injustice in punishing him for neglecting this duty.

We have no space to follow out in detail the argument of Prof. Hammond: though fair to look at, it seems to us so pieced with fallacies that, like the statue of clay and brass, it needs but to be struck in its weaker parts to totter to the ground. We can only refer to the chief among these fallacies, a constantly recurring one, *i.e.*, that society must needs hang the insane murderer to protect itself.

We have already alluded to the influences exerted by the occupation of the officers of the law to lead them into severity towards the individual. We may scarcely wonder that a judge, bred as a district attorney, or even as a member of the criminal bar, should by long habit so destroy all that sympathy which is due even to the outcast—should so far forget his sense of decorum—that, under the most solemn circumstances, when, as the instrument of the law, he is pronouncing doom, he should taunt the criminal as follows: "You have been convicted of the crime of murder. It has been alleged in your defence that you were actuated by an irresistible impulse. This may be true; but the law has an irresistible impulse to punish you; and it therefore becomes my duty to sentence you to be hanged;" or at the words of the French magistrate, "These men are madmen; but it is necessary to cure their mad acts in the *Place de Grève*."

We may not wonder, we repeat, at these sayings; but we do wonder that a physician, professedly an alienist, should quote them approvingly, and should himself write, "Looking at the matter, therefore, from a similar point of view, no valid argument can be adduced against the punishment of the insane, even though they be morally irresponsible for their acts by reason of delirium, dementia, morbid impulse, emotional insanity, or other forms of mental aberration," or the still more extraordinary sentiment, "But the individual who has a sufficient intelligence to know that pointing a loaded pistol at a human being, cocking it, and pulling the trigger, are acts which will cause the death of the person against whom they are directed, should be subjected *to the same punishment for a homicide as would be awarded for a like offence committed by a sane person.*"

We must protest against such sentiments as these of Dr. Hammond. To hang an insane man is simply to commit disgraceful, unnecessary, vengeful murder. Disgraceful, because alike at variance with Christian charity and modern science; unnecessary and vengeful, because out of it can come no good indirectly, and because it is not required for the protection of society against the individual upon whom the punishment falls.

Sequestration of the insane, the placing of them where they can do no injury, is certainly all that society needs for protection.

Society needs protection from the abuse of insanity by sympathizing juries far more than it does from the really insane criminal. A law requiring the sequestration for life of every man proved guilty of deliberate homicide, yet acquitted on the plea of insanity, would meet both difficulties at once: the sane would not escape punishment, and the insane would not be legally murdered.

Instances are not rare, and are, indeed, quoted by Dr. Hammond, in which an insane person has for weeks longed to rid himself of his life, but, having been held back by the fear of punishment for sin after death, has deliberately chosen murder, because the law would hang him for it and save him the sin of suicide,—or, recognizing the sin of murder, because he would have time to repent between

the committal of the act and the execution. What a seemly sight, to see such an insane criminal rejoicing at the gallows, thanking the sheriff and his minions for their aid in carrying out his designs! —in the wild delirium of delusion, resigning his soul into the hands of his Maker, as the law launched him into eternity.

Says Dr. Hammond, "Some of the insane are such monsters of depravity that they should be slain upon the same principle that we slay wild and ferocious beasts." Society needs protection from the smallpox, or from the pestilence. The insane murderer kills only his man,—the pestilence its thousands. The insane man is not morally responsible, has no power of choice; the pest-stricken man is not morally responsible, has no power of choice; but the latter, spreading the deadly poison, is far more the enemy of society than the former. The wild victim of hydrophobia in his madness may attack his fellows. Enemies of society, all of them. Hang them, then, on the one gibbet,—the delirious pest-stricken, the chattering insane, the tortured madman,—and call on Christian civilization, the world over, to admire with what energy society in America protects itself.

THE practical working of the theory of Dr. Hammond is seen in the case of David Montgomery, an epileptic, recently tried at Rochester, N.Y. It was proved that he was insane from recent convulsions for several days before the homicide; but, on Dr. Hammond's testimony that he was conscious at the time, he was convicted and *sentenced to be hung*. Drs. Gray and Cook testified to the familiar fact that epileptics often talk and act quite rationally for several days, being meanwhile really insane, and are afterwards entirely unconscious of what has passed, and denied the responsibility of the prisoner. This case was pending for a year and a half, the execution being postponed, until finally the prisoner became so evidently and completely demented as to require his commitment to the asylum for insane criminals at Auburn.

THE Trustees of Jefferson Medical College having requested Professor Joseph Pancoast to withdraw his resignation of the Chair of Anatomy in that institution, he has complied with the request, and will discharge the duties of the chair during the ensuing session.

LEADING ARTICLES.

REMARKS ON THE NEW CHEMICAL NOMENCLATURE.

BY W. H. H. GITHENS, M.D.

THE revolution which chemical science has undergone within the last fifteen years, and which has recently culminated in the new nomenclature, has been the result of a principle which was first recognized in organic chemistry, but which has more recently been acknowledged as applying equally to inorganic. This principle is, that in a chemical compound the arrangement of the atoms is of quite as much importance as their kind and number, and for this reason new formulæ were constructed to express this molecular arrangement.

To Berzelius we are principally indebted for the admirable system of nomenclature which is still in use in chemical science. Since his death changes have been made in details, but the general plan remains the same. By analysis and calculation he fixed the atomic weights of more substances than any other individual. Some of these equivalent numbers have been changed by later writers, and not always correctly.

At the suggestion of Sir Humphry Davy, Berzelius fixed the combining weight of oxygen at 16, of carbon at 12, and of sulphur at 32. In the case of these and a few others he was opposed by Dalton and other eminent chemists, who estimated them at one-half the value placed upon them by him: the opinions of Dalton and his friends had most weight with chemists in general, and their valuation was the accepted one.

After the lapse of years, the opinions of Berzelius were revived by Laurent and Gerhard. Careful research and comparison were made by these gentlemen, who endeavored to prove the inconsistencies of the accepted views. The principal writings of Laurent were published posthumously, and were translated for the Cavendish Society's publication for 1854.

An atom is a particle of matter which undergoes no division in chemical metamorphosis. It is the smallest particle of matter which can exist in a state of combination.

A molecule is formed when one atom unites with another atom, either different from or like itself. It is a group of atoms united by chemical affinity, and is the smallest particle of any substance which can exist in a free or uncombined state in nature. Molecules differ from one another because the atoms of which they are composed differ. They may vary in kind, in number, or in relative position.

Thus, a molecule of water differs from one of salt in the *kind* of atoms. A molecule of calomel differs from one of corrosive sublimate in the *number of chlorine atoms*. A molecule of oil of lemon differs from one of oil of turpentine in the *arrangement* of its atoms.

According to the law of Ampère, *equal volumes of all bodies in the gaseous state contain the same number of molecules*. From this law it follows that all gaseous molecules must be of the same size, and that the comparative weight of any molecule may be determined by comparing the weight of any given volume with the weight of an equal volume of a chosen standard,—hydrogen.

The molecule of hydrogen contains two atoms; when it unites with chlorine we find that equal bulks or volumes of each are required, and that the product fills the space required by the two separately. When hydrogen unites with oxygen, one volume of oxygen requires *two* volumes of hydrogen to satisfy its chemical affinity, but the product in the gaseous state occupies two volumes only, as in the previous case. When hydrogen unites with nitrogen, one volume of nitrogen requires *three* volumes of hydrogen, but the product occupies, as before, two volumes only.

These instances might be indefinitely multiplied, but they are sufficient to illustrate the fact that *compound molecules occupy double the space required by simple ones*.

The fact of the combining weight or atom of one element having the power to unite with one or more combining weights or atoms of another has called into existence a new term,—"quantivalence."

The quantivalence of an element is the expression of its combining power in hydrogen units.

With respect to this power, substances have been arranged into classes, as monads, dyads, triads, tetrads, pentads, hexads, and heptads. When the use of the adjective is necessary, atoms are called univalent, bi-valent, tri-valent, etc. Elements whose quantivalence is odd—I, III, V, VII—are called *perissads*. Those whose quantivalence is even are called *artiads*. As an element may form several compounds with the same substance, its quantivalence is not invariable; it always increases or diminishes by two; a perissad cannot become an artiad.

EXAMPLES OF VARIATIONS IN QUANTIVALENCE.

Monads	Hydrogen I.	Dyads	Oxygen II.
	Chlorine I, III, V, VII.		Sulphur II, IV, VI.
	Bromine I, III, V, VII.		Calcium II, IV.
	Iodine I, III, V, VII.		Magnesium II.
	Sodium I, III.		Zinc II.
	Potassium I, III, V.	Tetrads	Carbon II, IV.
	Silver I, III.		Lead II, IV.
Triads	Nitrogen I, III, V.	Hexads	Chromium II, IV, VI.
	Phosphorus I, III, V.		Manganese II, IV, VI.
	Arsenic I, III, V.		Iron II, IV, VI.

The *equivalent* or *atomic weight* of any substance is its relative weight as compared with hydrogen, which is considered the unit.

In order to ascertain the atomic weight, we must know—*first*, the weight of the quantity which will combine with one atom of hydrogen; *second*, the molecular weight of the hydrogen compound.

Example.—The analysis of water shows that in 100 parts there are 88.89 parts of oxygen and 11.11 of hydrogen; the ratio of 88.89 to 11.11 is 8 to 1. If the molecule of water contain only one part by weight of hydrogen, and eight parts by weight of oxygen, its molecular weight will be $1+8=9$. But each molecule may contain two, three, or more times this proportion of each ingredient. To determine this point, we recall the law of Ampère, that equal volumes of all bodies in the gaseous state contain the same number of molecules, and also the fact that a compound body will fill two volumes. Weighing one litre of hydrogen, we find its weight to be .0896 grammes; two litres of vapor of water weigh 1.6094 grammes. When we divide the weight of the water vapor by the weight of the hydrogen, $1.6094 \div .0897 = 18$, the molecular weight of steam and also of water. Thus water is shown to consist of sixteen parts by weight of oxygen, and two of hydrogen.

The atomic weight of any substance being the smallest quantity by weight which can enter into combination, by comparing the molecular weights of the various compounds of the same element the atomic weight becomes more certain. Thus, the molecule of water contains sixteen parts by weight of oxygen, a molecule of carbonic acid gas thirty-two parts, etc. In no known compound are there fewer than sixteen parts by weight of oxygen in a molecule. Thus sixteen is proved to be the atomic weight of oxygen.

In consequence of the difficulties surrounding the exact fixation of the atomic weights and the molecular composition, many errors and differences of opinion have been caused; these are now disappearing, and in the new tables we have undoubtedly a near approach to exact truth. Below are given a few of the more prominent elements:

Doubled.		*Changed but little, if at all.*	
Aluminium	27.5	Antimony	122.
Bismuth	210.	Arsenicum	75.
Calcium	40.	Bromine	80.
Carbon	12.	Chlorine	35.5
Copper	63.5	Iodine	127.
Gold	196.6	Hydrogen	1.
Iron	56.	Mercury	200.
Lead	207.	Nitrogen	14.
Magnesium	24.	Phosphorus	31.

Doubled.		*Changed but little, if at all.*	
Manganese . . .	55.	Potassium	39.
Oxygen	16.	Silver	108.
Sulphur	32.	Sodium	23.

It was the original proposition of M. Cannizarro and M. Wurtz to double the atomic weights of all the metals.

(To be continued.)

CORRESPONDENCE.

To the Editor of the Philadelphia Medical Times:

DEAR SIR,—Your recent editorial remarks under the caption of the "Wills Hospital" suggest to me the propriety of stating some facts which may avert the creation of an erroneous impression in regard to the present functions of the institution.

In the bequest of James Wills the object is stated to be for "the relief of the indigent blind and lame." Latitude given to the word "relief," in the opinion of legal counsel, permitted it to mean the medical and surgical treatment of them in the hospital that was endowed.

It would seem that the donor, in his goodness and simplicity, intended, by the indefiniteness of the wording of the will and the entire absence of details of his wishes, that the "Trustees or Managers" should have much discretionary authority in regard, as it is expressed, to "the rightful regulating of the establishment."

If the intentions of the will have not—through the force of circumstances which will be alluded to—been fully carried out, there has, nevertheless, been no perversion of the designs of the founder. The hospital has become exclusively an eye-hospital rather as the result of public demand or the necessity of patients than through active determination on the part of its managers so to render it. There has been no official action of that body excluding "lame" persons from its benefits.

The institution has been long popularly known as the Eye Infirmary, or the Eye Hospital, and, among medical men, as the Wills Ophthalmic Hospital. During the long period of my service as one of its surgeons I have never been applied to for the admission of a case of lameness; and, to my knowledge, such applications are not made. The pressure on the institution is for the admission of ophthalmic cases, and its limited wards are, unfortunately, almost always overcrowded with such patients. There is, therefore, no room for the admission of, nor, in the present financial condition, are there any means or facilities for the treatment of, the "lame."

There are also good reasons why the admission of diseases and injuries of the limbs producing lameness would be improper in the same institution with patients suffering from diseases of the eyes. Diseases and injuries of the lower limbs are frequently attended with suppuration and septic discharges which are dangerous in the vicinity of cases of eye-affections, especially of those recently submitted to important operations for the restoration of sight.

It has been exceedingly difficult, and at times impossible, to keep the wards of the Wills Hospital free from the infectious spread of inflammatory and suppurative disease; and my surgical colleagues will agree with me in the opinion that the risk of such calamitous endemics would be greatly increased by having cases of the character I have alluded to placed in proximity to ophthalmic patients.

In illustration of this incompatibility, I may recall my once having seen in the institution, very many years ago, a moribund case of complete gangrene of both legs lying in a ward with ophthalmic cases occupying beds in the vicinity. Every hospital surgeon knows the danger of the spread of germinal matter from such a case, and its liability to produce destructive inflammation of the eye.

If the Wills Hospital were to admit the indefinite class of "lame" cases, it would soon become a very small and unimportant *general* hospital in character; for lameness results from such varied causes, as organic disease of the brain, producing paralysis of a leg, or by the crippling induced by spinal caries, etc. The hospital is now resorted to by a vast number of patients requiring attention to their eyes, of whom but a comparatively small number are admitted to remain in the wards: thus the institution has reached a utility far beyond what its founder could have hoped for.

In reference to your statement that "the foundation of the Orthopædic Hospital may have been rendered necessary by the non-treatment of orthopædic cases," I may be permitted to remark that a hospital for the lame and an orthopædic hospital cannot in functions substitute each other. Orthopædic surgery covers a far greater scope than lameness, and at the same time the majority of the cases of lameness are not proper for admission to an orthopædic hospital. Orthopædic cases, such as wry neck, spinal curvature, or a clubbed hand, would not be admitted to a hospital for the lame; whilst most of the injuries and diseases that cripple the legs would be excluded from an orthopædic hospital.

I am convinced that the institution is conducted as nearly in compliance with the letter and spirit of the will *as is practicable and right.* As some restriction in the number of admissions, and discrimination in regard to their character, must necessarily be made, I think that the beneficence of the bequest will be best fulfilled, and suffering humanity gain the most, by acting on the democratic principle of "the greatest good to the greatest number," and continuing the objects of the institution as they are recognized in its conventional title of the "Wills Ophthalmic Hospital."

Respectfully,

R. J. Levis, M.D.

REVIEWS AND BOOK NOTICES.

HANDBOOK OF PHYSIOLOGY. By WILLIAM SENHOUSE KIRKES, M.D. Edited by W. MORRANT BAKER, F.R.C.S., Lecturer on Physiology at St. Bartholomew's Hospital. A new American, from the Eighth enlarged English Edition. 12mo, pp. 656. Philadelphia, Henry C. Lea, 1873.

This handbook is so well known as to require no extended notice at our hands. In its enlarged form it is, in our opinion, still the best book of physiology, most useful to the student of medicine, crowded as he is during the winter months with a multitude of varied studies. We congratulate the American publishers on having replaced the reprint of the very old edition they have so long supplied the market, by this new edition, which is fully up to the demands of modern physiology. We predict for it a continued popularity.

A REPORT ON THE ORIGIN AND THERAPEUTIC PROPERTIES OF CUNDURANGO. By W. S. W. RUSCHENBERGER, M.D. Published by order of the Navy Department, Washington, 1873.

This pamphlet of twenty-five pages contains pretty much all that is known in regard to cundurango, its natural history and therapeutic value. We agree with the author that "the testimony as to the therapeutic value of this plant is not satisfactory."

DIE ORTHOPAEDISCHE BEHANDLUNG DER POTT'SCHEN KYPHOSE von CHARLES FAYETTE TAYLOR, M.D. Aus dem Englischen übersetzt von Dr. PAUL BIESENTHAL, pract. Arzt in Berlin. Mit 20 in den Text eingedruckten Holzschnitten. Berlin, 1873.

This is a translation of a paper read by Dr. Taylor before the New York Medical Society. If any of our readers are so in love with the German as to prefer it to the Saxon, we commend this pamphlet to their notice.

RECENT IMPROVEMENTS IN OPHTHALMIC SURGERY. By D. S. REYNOLDS, M.D. Read before the Kentucky State Medical Society.

This little pamphlet contains a short account of some of the more recent operations performed for the removal of strabismus, conical cornea, and corneal opacities, with a few pages devoted to the treatment of ulcerations of the cornea, iritis, and sympathetic ophthalmia.

SELECTIONS.

CONCERNING THE CLOSURE OF ABNORMAL ANUS.

BY JOHN DUNCAN,

Assistant-Surgeon, Royal Infirmary, Edinburgh.

THE treatment of artificial anus has at various times attracted considerable attention. Till a comparatively recent date, its pathology was imperfectly understood; but the recognition of the septum as the main obstacle to closure, and the methods for overcoming that obstacle adopted by Schmalkalden, Physick, and Dupuytren, greatly elucidated the subject, and marked a very decided advance in principle and practice. Still, however, in a certain number of cases the destruction of the septum is not followed by obliteration of the abnormal orifice, and in these circumstances surgeons resort to plastic operations, of which the main characteristics are a bewildering variety and a great absence of success. I venture to add to the list yet another method, because I think it presents fewer chances of failure than any hitherto devised. It rarely falls to the lot of a surgeon to consider the treatment of a case to which such an operation may be applicable. I make no apology, therefore, for illustrating my proposal by a solitary example. It possesses at least the merit of completeness, and assuredly exhibits no undue haste on my part to anticipate the efforts of nature.

The patient was a domestic servant, aged 45, whom I was asked to see by Dr. Inglis in April, 1869. She had been ill for a week before sending for Dr. Inglis, and had supposed her illness to be a bilious attack, unconnected with the swelling in her left groin, as this had often previously come and gone without causing discomfort. I found it to be a femoral hernia, already red, swollen, and emphysematous. An incision exposed a loop of the intestine gangrenous in its entire circumference, and rent on its convex surface. I divided the stricture and left the bowel *in situ*. The patient slowly recovered with an abnormal anus capable of admitting two fingers, and through which alone the fæces were discharged.

She was advised to await a possible natural contraction of the orifice, and I did not again see her till June, 1870. In the interval she had worn a truss, which, however, retained the fæces very imperfectly, and during the whole time there had been no passage by the rectum. The artificial anus had not diminished in size, and the septum was distinct and prominent. The orifice of the lower portion of the bowel had contracted somewhat, but was large enough to admit the little finger.

Instead of using the enterotome, I passed a double silver wire through the septum, about an inch and a half above its free margin. It was left loose for two days, and then one of the wires was gradually tightened, until on the eighth day it ulcerated its way out. The other wire had meanwhile, as I anticipated, become slightly imbedded by reunion of the deeper parts, and it now fulfilled the purpose for which it had been left, in being drawn out through the recent adhesions. The same day fæces passed by the rectum, and, after a week of considerable irritation, solid motions were regularly and naturally established. The patient was sent to the country, with instructions to remove the truss only for purposes of cleanliness.

I again saw her in December, 1871, and was disappointed to find that still no contraction of the orifice had taken place, although (the truss being regularly worn) all the fæces passed by the natural route. I repeated the former operation, including in the wire nearly an inch more of the contiguous walls of intestine. The condition of affairs was not thereby improved, and it was plain that the septum was no longer an impediment to closure. In April, 1872, I therefore performed the following operation:

Having thoroughly cleared out the bowel by purgative and enema, I dissected up the mucous membrane all round the abnormal orifice for more than half an inch, invaginated it, and sewed the raw surfaces together by six points of interrupted catgut suture, which were then cut short. I next pared freely the margin of the skin, and brought it together by means of silver wire.

During the after-treatment the parts were relaxed by keeping the thigh flexed. The diet was restricted to milk with lime-water. On the eighth day, finding the wound entirely united, I removed the stitches. A little froth issued from the small openings left by the removal of a corner stitch. These openings remained patent for some weeks, notwithstanding the use of the hot wire. Nothing but gas, however, escaped from them, and they ultimately soundly healed.

The patient remains in every respect perfectly well, and it is now a year since the closure was effected.

Such an operation is, of course, only possible when the artificial anus is of large size; but it is precisely in these cases that other methods are least successful. The advantages which I claim for it are, that it presents to the fæces the normal mucous surface of the bowel, that it diminishes the strain upon the stitches, and that it largely increases the depth of raw surface, by the adhesion of which the pressure from within is to be resisted. It seems to me theoretically sound, and in this case at least was practically successful.—*London Lancet.*

GLEANINGS FROM OUR EXCHANGES.

Syphilitic Disease of the Placenta.—The *Medical Times and Gazette*, May 10, 1873, gives a summary of Dr. Ernest Fränkel's views on this subject. Dr. Fränkel's article contains the history of over twenty cases of syphilitic placenta. He summarizes his observations in the following conclusions:

1. The placenta may become affected by syphilis, and there are certain characteristic indications of this.

2. The syphilitic placenta occurs only in hereditary or congenital syphilis in the fœtus.

3. The seat of the disease varies according as the mother remains healthy and the syphilitic virus is communicated directly from the father to the ovum by means of the semen, or according as the mother is diseased. In the former case the affected fœtal villi of the placenta degenerate through proliferation of cellular granulations, with consecutive obliteration and atrophy of the vessels, complicated frequently by marked proliferation and thickening of the epithelial covering of the villi.

4. In the latter case, when the mother is syphilitic, the three following conditions may occur: *a*. The mother, through the act of impregnation, is simultaneously affected with syphilis with the fœtus; diffused syphilis of the placental villi may then develop itself, though primary infection of the maternal parts—endometritis placentaris—is not excluded. *b*. The mother becomes infected before, or shortly after, conception. The placenta may remain normal, or become diseased under the form of endometritis placentaris gummosa, or, according to Virchow, in a more limited sense, endometritis decidualis. *c*. The mother becomes infected only during the latter months of pregnancy (seventh to tenth month). It then generally happens that, in case the father was healthy at the time of impregnation, the fœtus, as well as the placenta, is exempt from the above-described alterations.

5. The infection of the fœtus on passing through the maternal passages is rare, and not yet proved conclusively.

Rupture of the Bladder from Injury—Recovery of the Patient.—Dr. J. Mengus (*Abeille Médicale*) records a case of this accident where the usually fatal result did not ensue.

At nine o'clock in the morning, a young man, æt. 34, fell on the edge of a wine-press from a considerable height; he immediately felt an acute pain in the pelvic and right hypochondriac region, but was able to walk and get home to bed. He was seen two hours after the accident, and presented the following symptoms: Pulse very slow and feeble; the right side of the belly swollen, tender, and dull on percussion; he had not passed urine since four o'clock in the morning, and could now pass only a few drops. A catheter was passed, which obtained but a few more drops, and a careful examination was made of the bladder, but no rent or opening could be ascertained. The bladder was then injected with warm water. The greater part, but not all, flowed back, tinged with blood. He was treated with opium, camphor, and quinine in pill, frequently repeated. On the same day, in the evening, the pain increased; leeches were applied over the belly; he restrained himself from drinking, as far as possible, and by the fourth week the symptoms disappeared. He could retain and urinate as before.

Chronic Tetanus treated by Excision of Cicatrix.—Mr. Annandale gives a short account of the following case: A boy, aged 16, wounded his foot. On the ninth day afterwards, trismus came on; and he came into hospital on the sixteenth day after the wound, or the seventh of the trismus. There was no laryngeal symptom nor opisthotonos. The patient swallowed well; his bowels were freely opened by croton oil, and for three days he was kept under the influence of small doses of morphia. For two days more he had ninety grains of chloral daily. On the twelfth day of the tetanus, slight contraction of the muscles of the limb began. On the next day, the cicatrix and a piece of nerve which appeared congested were cut out, and all medical treatment stopped. There was no improvement for two days; but on the third day, or sixteenth of the disease, he began to improve, and went out soon, quite well.—*British Medical Journal*, July 26, 1873.

Galvanism in Post-Partum Hemorrhage.—The following case may be considered of interest as furnishing an instance of the efficiency of a mode of treatment for the great opprobrium of obstetric art, which, if not new and little known, is at any rate far from being so widely employed as its numerous advantages would appear to indicate it should be.

The patient was in an extremely feeble state of health, and subject to epileptiform seizures. Convulsions came on during the first stage of labor, and could only be checked by keeping her under the influence of chloroform for some time. Failure of uterine action occurred before the os uteri was fully dilated; but, as it was sufficiently dilatable, forceps (Beattie's) were introduced, and delivery was accomplished. Still, the uterus did not contract, and, after the placenta was removed, hemorrhage could only be restrained by keeping the hand within the uterus. Grasping and kneading the uterus, cold affusion externally, and injections of cold water per vaginam, produced no effect. A dilute solution of perchloride of iron was freely injected into the uterus, but proved ineffectual. The employment of galvanism was then suggested as a *dernier ressort*, and one of Stöhrer's portable coil machines was procured. An interrupted current of considerable intensity was directed through the uterus, one pole of the battery being applied to the abdominal walls immediately over the fundus, by means of a curved plate of copper, and the other placed in the cervix. Almost immediately firm contraction took place; and when the current was discontinued after a short time, the uterus remained securely contracted, and no further hemorrhage took place. The patient made a good recovery.—*British Medical Journal*, August 9.

Oxide of Zinc in Infantile Diarrhœa.—In the *British Medical Journal* of July 12, Mr. Edward Mackey, M.B., recommends oxide of zinc in infantile diarrhœa, especially in those forms complicating nerve-troubles or hooping-cough. He points out that it has "tonic and anti-spasmodic as well as astringent qualities, a combination in a non-irritant substance exactly suited to many cases of the malady." It does not irritate, as chalk sometimes does, or gripe, as acids do occasionally, and is a better nerve-tonic than bismuth. Mr. Mackey says that it has given him excellent results in all varieties of infantile diarrhœa, in conjunction with

suitable diet. Dose, one grain for any age under two years, with a little syrup, mucilage, and dill-water three or four times daily, not on an empty stomach. A larger dose may nauseate. He says that oxide of zinc will give us in many cases the maximum of good with least liability to harm,—an advantage to be desired, especially in out-patient and distant cases. Dr. Waring-Curran has referred to this use of oxide of zinc, in the *Lancet*, October, 1868, and Dr. Brakenridge, in the *Medical Times and Gazette*, February, 1873, points out its tonic and anti-spasmodic as well as astringent properties.

Cholera Infantum.—Dr. Edward R. Palmer says (*The American Practitioner* for August), "Previous numbers of *The Practitioner* have contained articles highly commendatory of the calomel and of the bismuth and pepsin treatment of cholera infantum. I have tried both, and am fully convinced of their inferiority in this disease to the creosote and lead treatment. In the treatment of a large number of cases during the last three summers, but one has proved fatal, and that one was in a state of complete collapse before it was seen. The formula used is as follows:

℞ Mucilaginis acaciæ, ℥ss;
Liquoris calcis, ℥iss;
Creosoti, gtt. iij;
Plumbi acetatis, gr. xvj.
S. A teaspoonful every one to three hours.

"One thing proved is the innocuousness of the acetate, no symptom of lead-poisoning having in any instance resulted. A former professor of chemistry in this city was in the habit of asserting that sugar of lead might be given in scruple or half-drachm doses without any toxic effect, which seems, though contrary to general opinion, exceedingly plausible.

"Egg-water—the white of one egg to each gobletful—is given in conjunction with the above treatment. By adding a good-sized pinch of bicarbonate of soda to each glassful, the retention of this drink by the stomach is almost assured.

"Finally, in the above, reference is had to those cases only which are strictly cholera infantum, entero-colitis being excluded as a disease which during its protracted course usually needs a variety of treatment. Here too, however, creosote and lead will give great satisfaction."

Consumption of Spirits.—In the first quarter of the year 1873, duty was paid on 6,877,953 gallons of home-made spirits for consumption as beverage in the United Kingdom, being an increase of 684,051 gallons over the quantity in the corresponding period of the preceding year, or upwards of 11 per cent. In England the quantity was 3,790,712 gallons, an increase of 386,838 gallons; in Scotland, 1,466,124 gallons, an increase of 157,228 gallons; in Ireland, 1,621,117 gallons, an increase of 139,985 gallons. In the same period 1,325,360 proof gallons of imported rum were entered for consumption in the United Kingdom, an increase of 275,236 gallons; 951,163 proof gallons of imported brandy, an increase of 71,814 gallons; and 246,810 proof gallons of other imported spirits, not sweetened or mixed, being an increase of 70,029 gallons.

Subcutaneous Carbolic Injections in Intermittent Fever.—M. Déclat, at a meeting of the Academy of Medicine (*Gazette Médicale*, December 28), stated that in cases of intermittent fever he makes, on the first day of treatment, four subcutaneous injections of 100 drops of a one per cent. solution of carbolic acid, the next day three, the third day two. The first operation, says the author, always diminishes the fever, and sometimes cures it; the second is sometimes a work of precaution; and the third is so almost always.

Belladonna in Intestinal Invagination and Hernia.—M. Gallicie (*La France Médicale*), in a paper on belladonna, says it is the special medicament for intestinal invagination, strangulated or not, as also for strangulated hernia. It acts on both the spasmodic and inflammatory elements. In both cases, however applied, its first effect is to alleviate the intensity of pain, and to diminish and arrest the vomiting.

MISCELLANY.

Transfusion of Blood (*Pepys's Diary*).—Under date of November 21, 1667, we find: "With Creed to a Tavern, where Dean Wilkins and others: and good discourse; among the rest, of a man that is a little frantic (that hath been a kind of minister, Dr. Wilkins saying that he hath read for him in his church), that is poor and a debauched man, that the college have hired for twenty shillings to have some of the blood of a sheep let into his body; and it is to be done on Saturday next. They purpose to let in about twelve ounces; which, they compute, is what will be let in in a minute's time by a watch." November 30, we have the sequel: "I was pleased to see the person who had his blood taken out. He speaks well, and did this day give the (Royal) Society a relation thereof in Latin, saying that he finds himself much better since, and as a new man; but he is cracked a little in his head, though he speaks very reasonably and very well. He had but twenty shillings for his suffering it, and is to have the same again tried upon him; the first sound man that ever had it tried on him in England, and but one that we hear of in France." November 14, 1661, I find: "Dr. Croone told me that at the meeting at Gresham College to-night there was a pretty experiment of the blood of one dog let out (till he died) into the body of another on one side, while all his own run out on the other side. The first died upon the place, and the other very well, and likely to do well. This did give occasion to many pretty wishes, as of the blood of a Quaker to be let into an archbishop [e. g., Laud?], and such like; but, as Dr. Croone says, may, if it takes, be of mighty use to man's health, for the amending of bad blood by borrowing from a better body."

Specialities.—Dr. Robert Barnes says, "I have recently been honored by a visit from a lady of typical modern intelligence, who consulted me about a fibroid tumor of the uterus; and, lest I should stray beyond my business, she was careful to tell me that Dr. Brown-Séquard had charge of her nervous system; that Dr. Williams attended to her lungs; that her abdominal organs were intrusted to Sir William Gull; that Mr. Spencer Wells looked after her rectum; and that Dr. Walshe had her heart. If some adventurous doctor should determine to start a new speciality, and open an institution for the treatment of diseases of the umbilicus,—the only region which, as my colleague, Mr. Simon, says is unappropriated,—I think I can promise him more than one patient."—*London Lancet.*

CLAY-EATERS.—The Agmara Indians, inhabiting the shores of Lake Titicaca and the lofty plateau of the Andes, find the struggle for existence hard, at an altitude of more than 11,000 feet above the sea-level. Their principal articles of food are *quinoa*, a coarse grain resembling rice, and potatoes, of which tuber their country is the original home. The difficulty of boiling food at so great an altitude necessitates the previous maceration of all articles intended to be so cooked. The potato is, therefore, prepared for storing and use by exposing it to the frost; then it is placed in water, and stamped into a paste; all the soluble matter is washed out, and the starchy and farinaceous substance alone remains. This is called *chuno*, and it is made into a nutritious though insipid soup. The Agmaras use clay as an article of food, mixing it with *quinoa*. The clay they use is of a whitish color, and rather gritty. Careful analysis shows that it contains no organic matter; and therefore it must be used merely for the purpose of producing a satisfactory though delusive distention of the stomach.—*Popular Science Monthly*.

THE following curious statement comes to us on reliable authority: A vicious horse (gelding) that had the singular habit of striking violently with his fore feet, especially when being shod, was for several years worked with a mare that during the time bore a colt. This colt, when quite young, developed the habit peculiar to its mother's mate, becoming violent when any attempt was made to handle its fore-limbs. The habit increased with the colt's age, and, on being shod the first time, its manner of striking was observed to be precisely like that of the horse. The mother of the colt was unusually kind and gentle.—*Popular Science Monthly*.

PORTABLE DRY INK.—At a recent meeting of the Frankfort Polytechnic Association, Professor Boettger exhibited a novel kind of ink, which is admirably adapted to take on journeys and exploring expeditions. White blotting-paper is saturated with aniline-black, and several sheets are pasted to form a thin pad. When wanted for use, a small piece is torn off and covered with a little water. The black liquid which dissolves out is a good writing-ink. A square inch of the paper will give enough ink to last for considerable writing, and a few pads would be all that an exploring party need carry with them. As water is always available, the ink is readily made.—*American Journal of Pharmacy*.

THE RAISING OF CHILDREN DOUBLED.—Dr. Farr reports that the proportion of children raised has doubled within a hundred years. In London, the proportion of deaths under five years was—1730 to 1749, 74.5 per cent.; 1770 to 1789, 51.5 per cent.; 1851 to 1870, 29.8 per cent.—*The Medical Examiner*.

IMPORTANT, IF TRUE!—Acording to the *Indian Gazette*, the well-earned distinction of Rai Bahadoor has been bestowed upon Baboo Kannaye Lall Dey.

CHLOROFORM.

AIR.—"Spirito gentil nei sogni miei."—DONIZETTI: *La Favorita*.

Spirit genteel,
Sweet chloroform,
Soft o'er me steal,
Quell each alarm;
When thy soft murmur
Rings in my ears
Quickly 'twill conjure
Away all my fears.
When on my hotly-burning shoulder
Carbuncle blazes like a fire,
When through my largest three-fanged molar
The toothache rages dire,
Ah me! Ah me!
Spirit genteel,
Sweet balmy gale,
What can I feel
When thee I inhale?
For Nasmyth's big forceps with crashing claw,
For Syme's silver pocket-case, don't care a straw.
Nasmyth may wrench me with forceps or with key,
Syme may make his crucial through me—all's one to me.

From "*Nugæ Canoræ Medicæ: Lays by the Poet-Laureate of the New Town Dispensary*."

CINCHONA cultivation in Darjeeling is progressing favorably. Last year the Pomong garden, which is described as a commercial enterprise, yielded 36,000 lbs. of dry bark, and this season it will produce 50,000 lbs. A moderate estimate gives the produce of dry bark in the next three years at 200,000 lbs., calculated to yield 6000 lbs. of quinine and 6000 lbs. of other valuable alkaloids. "Fever-stricken Bengal," says *The Times* correspondent, "with its swamps and malaria, will hail the boon."

SCIENCE AS KNOWN TO THE ANCIENTS.—In Egypt mummies have been found with teeth filled with gold, and in Quito a skeleton has been discovered with false teeth secured to the cheek-bone by gold wire. In the museum at Naples, among some of the surgical instruments discovered at Pompeii there is a fac-simile of Sims's speculum. In the ruins of Nineveh, Layard found several magnifying glasses.—*New York Medical Record*.

THERE is in Cayenne a fly, called the *Lucilia Hominivorax* (man-eater), which commits great havoc among the convicts sent out to that colony by the French government. M. Charles Coquerel says that this fly lays its eggs in the mouth or nostrils of a sleeping convict, especially a drunken one, and that the offspring in their larval state usually bring about the death of their victim.—*Popular Science Monthly*.

MOULD ON BREAD.—Messrs. Richard and Legros express the belief in *Comptes-Rendus* that this frequent parasitic vegetation is due rather to the poor quality of the flour, or to bad management, than to the presence of germs in the air; and that it may be prevented by adding an excess of salt to the bread.—*American Naturalist*.

ONE profession (says *Punch*) is safe from the invasion of woman. She may enter the army, but it is impossible that she can man the navy.

SATURDAY, SEPTEMBER 6, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF LIGATION OF THE COMMON CAROTID ARTERY, FOR THE RELIEF OF AN ENCEPHALOID TUMOR ON THE HEAD.

Delivered at the Jefferson Medical College.

BY PROF. PANCOAST.

Reported by FRANK WOODBURY, M.D.

GENTLEMEN: This young man of eighteen is in a truly deplorable condition. He is brought to us by his father, from the interior of the State, hoping that we may be able to devise means of relieving him of this immense tumor, or at least of rendering his existence more tolerable and of prolonging his life. The tumor involves, or rather projects from, the entire right side of the head. The right eye is closed and the ball drawn upward and outward; the ear is distorted; while the prominent, pulpy mass of the tumor is discharging profusely offensive, unhealthy pus, and occasionally bleeds freely from its ulcerated surface.

A clerk in a country store, he possessed excellent health until seven months ago, when he noticed a small swelling under the temporal fascia, for the appearance of which he could assign no cause. This rapidly developed into a tumor as extensive as the temporal fascia itself, and is still enlarging. A large mass was removed from this region, a short time ago, by a good country surgeon, but without controlling the development of the tumor or arresting its growth.

This is a specimen of the encephaloid or cerebriform tumor, known commonly as children's cancer, having rather less vascularity than the ordinary fungus hæmatodes. This variety of malignant growth rapidly attains great bulk, the cell-activity, as regards rapid-developing power, resembling that of the human ovum. Towards the end, the vessels attain a large size, but not ordinarily so great as in fungus hæmatodes, in which the veins may, in some of the worst cases, become half the size of the little finger. These enlarged veins are apt to burst, giving the name of bleeding cancer to the tumor, and causing hemorrhages that sometimes can only be checked by the use of the actual cautery. The etiology and pathology of these affections are very obscure and unsatisfactory, but the morbid elements are supposed to be the white blood-cells abnormally developed. These are very numerous, and thus enlarged form mother-cells, which, bursting, release a progeny of nucleated cells possessing enormous vital energy, which rapidly increase in size and become mother-cells in their turn, getting their full development in the most malignant cases probably in one or two days. By the repetition of such processes we see how the monstrous growth of these diseases *may* be explained. These tumors sometimes attack the periosteum of the orbit, rapidly involving and protruding the proper structures of the eye and eventually destroying life. They may attack the mammary gland, especially after an unsuccessful attempt to remove a scirrhous mass; but their favorite seat is in the periosteum anywhere, even the dura mater of the skull, but especially about the thigh-bone, shoulder, or sternum. You saw in this room, a short time ago, a case in which we amputated at the shoulder-joint, on account of a large tumor of this kind commencing in the periosteum at the upper end of the humerus.

The tumor in the case before us is steadily increasing in size, has become of late the seat of a violent, throbbing pain, and there is increasing hemorrhage from its ulcerated surface. The patient, recently, has also had strong convulsions on several occasions. As he is now well rested from his journey, and has been otherwise carefully prepared for the operation, I will to-day ligate the right primitive carotid artery, not in the expectation of curing the disease, but in the hope that by cutting off the supply of blood from the tumor we may decrease the rapidity of its growth, prevent or diminish the convulsive paroxysms, reduce the tendency to hemorrhage, and thus prolong the patient's life. Such cases offer the surgeon a narrow line of duty: on one hand, he sees the possible dangers that may ensue upon the operation,—the usual risk of hemorrhage from the ligation of large vessels, to which is added the danger of serious injury to the brain from the sudden diminution of its blood-supply; while on the other hand he looks to the prospect of relief, and is inexcusable if he neglects to operate when the case requires it. On account of the free anastomosis in the circle of Willis, the cerebral vessels, after this operation, usually soon accommodate themselves to the altered circulation, and the nutrition of the brain is, generally, not materially impaired. Indeed, both the primitive carotids have been ligated within an interval of one or two days, followed by the recovery of the patient, in some recorded cases; but, if they were to be tied in quick succession, fatal syncope might be expected from such a grave disturbance of the cerebral circulation. In old persons paralysis might result from the ligation of only one of the trunks, manifesting itself suddenly, or produced gradually by softening of the brain from impaired nutrition; for in them the capillary vessels are weakened and often diseased, and are unable to establish the collateral circulation as readily as in younger persons.

In tying this artery the surgeon should not stand above the head of his patient, but at the side; for, as he naturally works towards himself, he would, in that position, be likely to place the ligature too high up. The danger of bleeding, after the ligature comes away, is not from the *cardiac* extremity of the divided vessel, because the trunk, having no branches, is soon filled with a solid coagulum, but from its *distal* side; and the nearer to its point of bifurcation that this artery is tied, the greater is the danger of a recurrent hemorrhage, which sometimes diffuses itself in a sheet between the cervical

muscles. Nor should the ligature be placed too low; because the vessel is there covered by three layers of muscles, and, on the left side, by the internal jugular vein.

The point most favorable for the operation (which, as the patient is ready, I will now perform) is on a line with the middle part of the larynx. The external incision passes along the inner edge of the sterno-mastoid muscle to the middle of the neck. Taking up and dividing each layer of fascia on the grooved director, and separating the muscles, the sheath of the vessels is seen, with the descendens noni nerve running obliquely inwards upon its outer and front surface. We now raise the sheath a little with the forceps, and open it on the inner side; the artery is then gently loosened in its sheath, on either side, with the grooved director. The director is then passed from without inwards under the vessel, and the ligature passed, with an eyed probe, along the groove and around the artery. I did not see either the pneumogastric nerve or the jugular vein, nor did I desire to. (The operation was done in a little less than three minutes.)

In those cases in which the surgeon finds that the trunk bifurcates lower down than usual (as it does in people with long necks), he should seek a lower point by extending his incision downward, or, if this is impracticable, either ligate both branches separately, or tie only the one which by compression seems to influence the circulation in the morbid growth.

Seventeen days after the delivery of the above, Prof. Pancoast brought the man again before the class, read the following extracts from his note-book, and remarked as given below:

"(Three days after the operation.) The throbbing pain has entirely disappeared from the tumor, and the patient has had no convulsions or subsequent hemorrhage. He lives on beef-tea and milk, and feels much better since the operation.

"(Fourteenth day.) The ligature came away on the tenth day, the wound has healed, and he has had no hemorrhage. The tumor is much smaller from the lessened supply of blood, and is free from beating pain."

"The marked improvement that has taken place in this case, gentlemen, encourages me to still further attempt the reduction of the tumor by inducing part of it to slough away. Sir James Paget, of London, employs arrows of soft wood dipped in melted chloride of zinc paste; these are inserted, radiating towards the centre of the tumor at the line where you wish to establish the plane of demarcation. For this purpose, however, I prefer a mixture of one part of chloride of zinc with four of wheat-flour, made with water into a dough, from which little spears with barbed heads are cut, and afterwards dried. Having prepared a number of these, openings are made in the tumor with the bistoury and the arrows inserted, being retained by the barb on the head. Having girdled the tumor with these, we may expect to detach a large slough. While waiting for separation, the surface may be dusted twice daily with carbolated lime, to allay the fœtor. We have used this preparation upon it for some days with considerable advantage."

(The patient shortly after returned to his home with the tumor diminished in size nearly one-half, and comparatively free from suffering.)

ORIGINAL COMMUNICATIONS.

PHYSIOLOGICAL ACTION OF THE BROMIDE OF POTASSIUM.

BY DR. H. C. WOOD, JR.,

Clinical Lecturer on Diseases of the Nervous System at the University of Pennsylvania.

BROMIDE of potassium administered to frogs in minute doses produces as a first result a tetanoid condition, in which there may be very marked opisthotonos. After a short time this stage of muscular excitement gives way to one of great muscular relaxation and total abolition of reflex actions. Voluntary movements, however, often occur during this period, and the frog, which has been lying limp and apparently dead, will startle the observer by a sudden vigorous leap. This fact has been so frequently witnessed* that there can be no doubt of its truth.

Very early in the paralytic stage the respiratory movements are affected, and they gradually grow less until their final arrest. When a very large dose of the bromide is given, death may be induced by paralysis of the heart;† but after a small toxic dose this viscus continues beating long after the cessation of breathing. If the drug be given by an injection practised in the vicinity of the heart, sudden cardiac arrest always occurs.

Upon mammals‡ the bromide acts very much as upon frogs, inducing progressive paralysis, depression of temperature, and death by asphyxia when given in small poisonous doses, and great disturbance of the circulation with finally diastolic arrest of the heart when very freely administered.

When a solution of the bromide is applied locally to the heart, it produces instantly marked lessening of its action, and, if in sufficient amount and concentration, even instantaneous diastolic arrest.§ Upon the voluntary muscles it acts in a similar manner when similarly applied. If its solution be not too concentrated or abundant, however, the muscle of the frog is first thrown into a tetanic spasm;‖ and Dr. Purser suggests that the tetanic symptoms seen in the frog poisoned by the bromide of potassium are due to this action on the muscles. On the nerve-trunks and also on the nerve-centres the bromide acts when applied locally as it does upon the muscles.¶

* The following observers have noted this persistence of voluntary movements: J. M. Purser, Dublin Journal of Medical Sciences, xlvii. p. 324, 1869; Lewisky aus Kazan, Virchow's Archives, xlv. p. 191, 1869; J. V. Laborde, Archives de Physiologie Normale et Pathologique, t. i., 1868, 423, and Comptes-Rendus, t. lxv., 1867; MM. Martin-Damourette et Pelvette, Bulletin Thérapeutique, lxxiii., 1867, 249.

† Albert Eulenberg and Paul Guttmann, Virchow's Archives, xli., 1867.

‡ Bulletin Thérapeutique, lxxiii. 256; Virchow's Archives, xli. 97.

§ Virchow's Archives, xli. 101.

‖ Dublin Journal, xlvii. 325.

¶ Bulletin Thérapeutique, lxxiii. 253, 290; also Dr. Amory, The Physiological and Therapeutical Action of the Bromide of Potassium, Boston, 1872, Part II., p. 147.

In general poisoning by hypodermic injection of the bromide this local action is often very manifest, and paralysis of the part into which the solution has been thrown follows very rapidly upon the injection.

It is, therefore, evident that the bromide of potassium in sufficient quantity is a deadly poison to all the higher animal tissues. To therapeutists, however, the interest centres about its action when exhibited in doses just sufficient to take life, or in still smaller quantities.

The persistence of voluntary movement in the frog after the abolition of reflex actions shows that the influence of the drug is not chiefly exerted upon the cerebral centres of motor impulse, nor upon those cells of the cord which originate movement, but upon either the afferent nerves or upon those portions of the cord which transmit the impulse from these nerves to the cells presiding immediately over motion. This is confirmed by some experiments of Lewisky, in which it was found that previous separation of the cord from the cerebrum had no influence upon the action of the bromide. Both he and Purser also found that death occurred from small doses before the motor-nerve trunks and the muscles had lost their irritability.* This being so, the question arises whether the paralysis be spinal or due to paralysis of the peripheral afferent nerves. There is an apparent conflict in the evidence upon this point. Eulenberg and Guttmann (*loc. cit.*, p. 103) found that when access of the poison was prevented to one or more limbs by tying the arteries, reflex actions were abolished in these parts as rapidly as in others. Similar results have been obtained by Lewisky, by Roberts Bartholow,† by Purser‡ (*loc. cit.*, p. 326), and by Laborde (*loc. cit.*, p. 434). The latter observer has also found that electrical stimulation of a nerve high up will cause violent spasms in the muscles directly supplied by it, when it is unable to excite the slightest reflex tremor. On the other hand, Damourette and Pelvette assert a contrary result. Unfortunately, they do not give the details of their experiments. They state, however (p. 247), that if the lumbar plexus of vessels be tied before the poisoning, the fore-feet lose their reflex activity before the hinder. There are two possible methods of reconciling their results with those of the other observers. In some way the operation may have interfered with the circulation in the lower part of the cord, and consequently the poison have reached more freely the upper part of it and acted first upon it. Again, if the injection was, as is very probable, thrown into the anterior portion of the body, the poison may have reached the anterior extremities in so concentrated a form as to have acted as it were locally upon their nerves and muscles. The same observers in another portion of their memoir show that the solutions of these salts travel by imbibition; and this and their local action seem to me to be the cause of the differences of experimental results. It seems well established that cutaneous anæsthesia in greater or less degree accompanies the loss of reflex activity; for, as Dr. Purser says, a poisoned animal quite able to jump submits to pinching, pricking, burning, etc., without moving. Eulenberg and Guttman have noticed the same thing in some rabbits. Damourette and Pelvette (*loc. cit.*, p. 247) have noticed a condition in which electrical stimulation of a nerve-trunk produced marked reflex action although no excitement of the skin supplied by the afferent fibres of the nerve was capable of doing this, showing that the extremities of the sensitive nerves are affected before the trunks.

The evidence is, I think, sufficient to prove that bromide of potassium affects all parts of the nervous system of the lower animals, but that the cerebrum, the motor tract of the cord, and the efferent nerves are the last portions to be affected; that the most sensitive to its action is the receptive portion of the cord,—that which receives and transmits reflex impulses,—and next to this and perhaps almost equally susceptible with it are the peripheral ends of the afferent nerves.

Upon the cerebrum of the higher animals the bromides undoubtedly exert an influence; but I am not cognizant of any researches sufficiently elaborate to show its extent or nature.

It is well established that large toxic doses of the bromide exert a direct paralyzing action on the heart, lessening both the force and frequency of the beat, and finally causing diastolic arrest. Dr. J. G. Schouten§ found that during the slow injection of a two per cent. solution into the vena cava of a rabbit the cardiac systole grew slower, the diastolic pauses longer, and finally the heart stood still, exhibiting only fibrillary contractions of its walls. The same observer is, so far as I know, the only one who has made manometrical studies of the action of small doses of the drug. He found that such amounts of the bromide administered hypodermically or by the stomach always produced increased pulse-frequency with lessened arterial pressure. His experiments were, however, not carried far enough to demonstrate either how these two changes are brought about, or the relations of the drug to the vaso-motor nerves. Much has been predicated upon the theory which asserts that bromide of potassium causes vaso-motor spasm. No decisive proofs have, however, yet been offered of the truth of this favorite dogma. The evidence so far brought forward is as follows. Lewisky found that if the toes of two frogs—one poisoned, the other not—were cut off, the unpoisoned frog bled much more freely than the other. This experiment has been confirmed by Dr. Amory; it, however, evidently does not prove the existence of vaso-motor spasm, but only of a lessened activity of the circulation, which may be of cardiac origin.

According to Damourette and Pelvette (*loc. cit.*, p. 249), when the interdigital membrane of the frog is watched during poisoning there is seen at first very often an exceedingly brief period of increased cir-

* Confirmed by Saisson, Schmidt's Jahrbücher, Bd. cxliii. p. 17.

† Bromides: Their Physiological Effects. Providence, 1871.

‡ From the wording of his memoir, it is, however, doubtful whether Purser performed the experiment himself.

§ Archiv d. Heilk., xii. 2, p. 97, 1871; Schmidt's Jahrbücher, Bd. cliv. p. 11.

culation, but in a very short time the latter becomes much slower. Dr. Meuriot* asserts that it can readily be seen by the aid of the microscope that this slowing of circulation is due to a contraction of the capillaries, and especially of the small arteries, whose lumen may even be obliterated. Dr. Saisson† also asserts that he has witnessed a similar phenomenon in the tongue of the frog, and Dr. Hammond and Dr. Amory state that they have seen it in the brain of the dog. On the other hand, Dr. Purser (*loc. cit.*) and Dr. F. B. Nunneley‡ assert that the vessels in the frog's web are not affected by bromide of potassium given hypodermically.

My own studies of the action of various poisons upon the vessels of frog's web have yielded such varying and unsatisfactory results as to make me hesitate in accepting evidence of this nature unless otherwise corroborated. In the absence of manometrical studies, I think the most that can be fairly claimed is that our present knowledge renders it somewhat probable that the salt under consideration is capable of producing vaso-motor spasm. The further deduction that the nervous symptoms induced are secondary to and produced by this spasm is wholly gratuitous, unproven, and improbable. The action of the bromide when applied locally to the bared nerve demonstrates that it acts directly upon nerve-tissue. Further, the absolute anæmia of the bloodless "salt frog" produces no such nervous symptoms as does even a non-toxic dose of the bromide; and the direct experiments of Dr. A. Weil§ have shown that in the frog the complete abolition of circulation has no effect upon the spinal marrow during the first half-hour. The proof is very strong that the drug acts directly upon the nervous tissues.

In warm-blooded animals, toxic doses of the bromide of potassium lower very decidedly the temperature. Although the point cannot be considered at all settled, it is probable that this lowering of temperature is due to a direct checking of tissue-changes. Dr. J. H. Bill‖ has found a constant decrease in the amount of carbonic acid eliminated after the ingestion of the salt. In his experiments the daily excretion of urea was not perceptibly affected; but Dr. Rabuteau found it slightly lessened,¶ as did also Dr. Bartholow (*loc. cit.*, p. 11).

When the blood is charged with the bromide, the salt probably escapes with all the secretions. It has been found by Voisin, Amory, Namias, Bill, etc., in the saliva and in the urine. Amory has also demonstrated its presence in the perspiration. In the body of a man who died whilst taking it, M. Namias** found it in all the liquids, as well as in the brain, liver, spinal cord, lungs, etc.

Elimination takes place to a certain extent through the skin, and to some extent through the intestinal mucous membrane also. Dr. Bill (*loc. cit.*, p. 25) always detected it in marked quantities in the fæces of men taking it; and H. Quincke†† found that when forty grains of the bromide of sodium were given to dogs with intestinal fistula, two and a half hours afterwards the intestinal juices were free from the bromides, which reappeared in from three to six hours. The salt escapes also through the kidneys. The rapidity of elimination seems to vary: thus, Amory recovered one-half of the amount ingested during the first and one-third during the second twenty-four hours, whilst Bill was not able to get more than one-eighteenth of it during the first day. Dr. Bill has frequently found the bromides in the urine two weeks after the last dose has been exhibited; and Dr. Rabuteau has seen its presence persist under similar circumstances for a month.

No case of acute poisoning with the bromide of potassium has been reported, and I have never seen a single dose of it produce any obvious effect; the results of the continuous employment of large doses of it, however, demonstrate that it acts upon man as upon the lower animals. When it is taken with sufficient freedom to accumulate in the system, a conjunction of phenomena known as *bromism* arises. The cerebral symptoms are a sense of mental weakness, heaviness of intellect, failure of memory, partial aphasia, great somnolence, and depression of spirits. With these there may be decided impairment of the sensibility of the mucous membranes and of the skin, so that titillation of the fauces may be without effect, and according to Puche even heat applied to the skin calls forth no complaint, and Huette‡‡ has seen in some cases absolute anæsthesia of the sclerotic conjunctiva. The sexual function is abolished. There is also very generally fetid breath, and an eruption of acne, which may indeed be very severe. Of course, in any individual case of bromism many of these symptoms may be wanting; but when the use of the remedy is persisted in, they all become developed in an intense degree. Professor Edward H. Clarke thus speaks of a case which came under his notice: "The fetid breath becomes nauseous; œdema supervenes on congestion of the uvula and fauces; the whispering voice sinks into aphonia; sexual weakness degenerates into impotence; muscular weakness becomes complete paralysis; reflex, general, and special sensations disappear; the ears do not hear, or the eyes see, or the tongue taste; the expression of hebetude becomes first that of imbecility, then that of idiocy; hallucinations of sight and sound, with or without mania, precede general cerebral indifference, apathy, and paralysis; the respiration, without the stertor of opium or alcohol, is easy and slow; the temperature of the body is lowered; as the bromism becomes more profound, the patient lies quiet in bed, unable to move or feel or swallow or speak, with dilated and uncontractile pupils, and scarcely any change of the color of his skin or face."

It is evident that upon man the bromide in large doses acts as a depressant, which, although affecting

* L'Étude de la Belladonne, p. 49.
† Schmidt's Jahrbücher, Bd. cxliii. p. 17.
‡ London Practitioner, vol. iii. p. 351.
§ Reichert's Archiv für Anatomie, 1871, p. 271.
‖ American Journal of Medical Sciences, July, 1868, p. 25.
¶ Gazette Hebdomadaire, 1869.
** Comptes-Rendus, tome lxx. p. 882.
†† Reichert's Archiv für Anatomie, xxxv. 158, 1868.
‡‡ Mémoires de la Soc. Biolog., 1850.

decidedly the circulation, acts especially upon the nervous system, depressing the cerebral functions, lowering the reflex excitability of the cord, and paralyzing the peripheral ends of the afferent nerves in the same order and degree as it does in the lower animals.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. MORTON.

Reported by WILLIAM BARTON HOPKINS.

SUCCESSFUL HERNIOTOMY IN A CHILD OF TWENTY-EIGHT MONTHS.

L. A., æt. 2 years and 4 months, was admitted to the hospital in the evening of the 7th of July, 1873, with strangulated inguinal hernia on the right side. The hernia was congenital, and nothing had been done for its relief until six weeks previous to his admission, when a truss was applied, and it remained reducible until July 5, when he fell down-stairs, and on the 6th marked symptoms of strangulation presented themselves. On the 7th restoration was attempted, but unsuccessfully, when he was brought to the hospital, verging on collapse, very pale, with quick feeble pulse, constant sick stomach, and general prostration.

On examination, a scrotal tumor was found on the right side, very tender to the touch, with considerable abdominal swelling.

After etherization, taxis having failed to reduce the intestine, the ordinary operation was performed by Dr. Morton at 6 P.M. on the same day. A large piece of intestine was found in the scrotum, of a dark maroon color, and firmly constricted at the internal ring, which was found to be very small. It was impossible to reduce the mass by pressure alone, but, after careful and steady dilatation with the finger at the ring, the parts yielded, and the intestine was then replaced.

Five deep silver sutures, clamped with shot, held the parts in good apposition; quarter-grain opium suppositories were administered with teaspoonful doses of brandy every two hours, and a liquid nourishing diet.

The symptoms subsided immediately; rapid convalescence followed, and the child was discharged, quite well, July 19, twelve days after the operation.

Strangulated hernia in subjects so young must be rare. The youngest case requiring operation, on the records of the Pennsylvania Hospital, it appears, was a lad aged 13, who was admitted March 13, 1872, the strangulation having existed for four days before; he was operated upon on the day of his admission, and was discharged, cured, April 17, 1872.

Dr. Morton believes that in these cases there is no necessity for dividing the edges of the ring, dilatation with forceps or the finger, as in the case described, being quite sufficient.

BELLEVUE HOSPITAL, NEW YORK.

NOTES OF TREATMENT.

BRIGHT'S DISEASE.

IN this affection diuretics are employed, a favorite prescription on one division being,—

℞ Potass. bitart., ʒiv;
Inf. digitalis, ʒiv. M.
S.—ʒij—ʒiv t. d.

On another division a case is being treated by the administration of large quantities of water,—about six pints being given in twenty-four hours. Diminution of this quantity is followed by serious symptoms, which disappear when the amount is again increased. Inhalation of the vapor of ol. juniperi has been tried on another division, the effect in some cases being well marked, but negative in others. The bowels are kept open by occasional doses of Murchison's powder on one division, by elaterium on another. Iron and quinine are given as tonics; the tr. ferri chlorid. being preferred by some.

A favorite prescription on the second division is,—

℞ Ferri sulph. exsic., gr. ij;
Quin. sulph., gr. j;
Ext. gent., q. s. M.
S.—Pil. j t. i. d.

If there be much anasarca, strychniæ sulph. is sometimes added to the above. In ascites, stupes of digitalis infusion are placed over the kidneys occasionally with benefit.

If delirium or convulsions ensue, in addition to the use of eliminative remedies, as elaterium, hypodermic injections of Magendie's solution of morphia are given, with the object of lessening the sensibility of the nervous centres to the action of the blood-poison. This treatment, suggested by Prof. Loomis, seems to be efficient in a large proportion of cases. In uræmic coma, stimulating enemata, with the hot-air bath, are the means usually adopted.

DELIRIUM TREMENS.

In cases of injury complicated with this trouble, Dr. Griffith, of the third surgical division, is in the habit of giving as a drink, in twenty four hours, infus. artemisiæ absinth. Oij; also giving porter. On other divisions, chloral hydrate is given, associated with bromide of potassium, as in the following:

℞ Chloral-hydrat., ʒij;
Potass. bromid., ʒiv;
Aq. cinnamomi, ʒij. M.
S.—ʒj q. i. h. until sleep occurs.

Usually only a few doses are required to produce this result.

CHOLERA INFANTUM.

If the disease have reached the cold stage, the best results are obtained by the administration of the "eau albumineuse," prepared by dropping the white of an egg in a teacup half full of water, gently stirring (not beating), until the albumen is dissolved. To this brandy is added, so that each drachm contains from two to five drops, varying with the age of the child. A teaspoonful is given every half-hour, the patient being also wrapped in blankets, and the surface stimulated by applications of ol. camphorat.

W. H. FARRINGTON, M.D.

ST. MARY'S HOSPITAL—DISPENSARY FOR NERVOUS DISEASES.

SERVICE OF CHARLES K. MILLS, M.D.

Reported by JOHN S. BAGG, M.D.

SPINAL ANÆMIA.

J. R. W., æt. 25, had been for three years a sufferer from various nervous and visceral disturbances, and for about two years of that time he had been unable to attend to any regular work, owing to the condition of his health. From the patient's account of his symptoms, his disorder had been protean in character, and he had been treated at intervals by different physicians for dyspepsia, heart-disease, cerebral congestion, general debility, etc.

The patient complained of an inability to concentrate his thoughts upon any subject, and of an almost constant feeling of uneasiness in the head, which some-

times seemed constricted, at other times light; but he was very little annoyed with headaches. Disturbance of the stomach was a prominent feature in the case. He was troubled nearly all the time with gastric flatulence and acidity, and a feeling of oppression in the epigastric region, and occasionally with pain in the stomach, and nausea. He was never constipated, but now and then had attacks of diarrhœa, and suffered frequently from abdominal pain and soreness, which he attributed to wind. Palpitations and pain over and about the region of the heart, probably intercostal neuralgia, were among the occasional symptoms. During the greater part of the last two years he had been subject to nocturnal emissions twice and three times weekly. He had difficulty in walking, from a feeling of weakness in the legs and of uncertainty of gait. He always felt better when lying down, and just after arising from the recumbent position. He stated that his mind was always in an irritable condition.

On examination of the spine, tenderness on pressure was found from the third to the tenth dorsal vertebra, most marked over the eighth and ninth; and there was tenderness also over the third and fourth lumbar vertebræ. Slight pain in the cord, chiefly in the upper dorsal region, was developed by percussion. The case was diagnosed to be one of anæmia of the posterior columns of the spinal cord.

Blisters over the seats of tenderness were ordered to be applied and repeated as soon as possible. The following prescription was given:

℞ Strychniæ sulphat., gr. j;
Ferri pyrophosph.,
Quiniæ sulph., āā ʒss;
Acid. phosph. dilut.,
Syrupi zingiberis, āā fʒij.—M.

S.—A teaspoonful to be taken three times daily, immediately after each meal.

The induced current was applied twice weekly to the muscles of the body and extremity. Exercise in the open air, and good nutritious diet, were also enjoined.

At the time of making this report the patient has been three weeks under the treatment just given, the blisters having been twice repeated. The palpitations, neuralgic and other pains, flatulence, acidity, nausea, and nocturnal emissions have ceased to annoy him. He experiences very little uneasiness in the head, and can walk a long distance without difficulty. He expresses himself as feeling better than he has done before for nearly three years. The same treatment will be continued.

CASES OF OVARIOTOMY.

BY WASHINGTON L. ATLEE, M.D.,
Of Philadelphia.
Reported by J. Ewing Mears, M.D., of Philadelphia.

CASE 245.—*Unilocular ovarian tumor—Incision four inches in length—Inveterate adhesions—Death on the ninth day.*

November 8, 1871, Dr. Atlee visited, in consultation with Drs. Fay and Gemmill, Mrs. T. McC., an ignorant Irishwoman, living in a small shanty on the outskirts of Altoona, Pa. The patient could give no satisfactory account of her age; she appeared to be about forty years old. Menstruation commenced at the age of eighteen or nineteen, and has always been regular. She was married in 1868, and has had one child, now eighteen months old.

In 1866 the abdomen began to enlarge, the enlargement gradually increasing until Dr. Atlee saw the patient, when she was larger than a woman at full period of gestation. On examination, all the symptoms of a unilocular cyst were found to be present. The pelvis was free, the uterus was movable, and admitted the sound two and one-half inches.

Ovariotomy was performed, the following-named gentlemen being present: Drs. Gemmill, Fay, Findley, and Bell, of Altoona, Roller and Irwin of Hollidaysburg, Miller of Huntingdon, Clark of Bell's Mills, and Bloom of Martinsburg.

In this case, owing to the very extensive and firm adhesions which bound the cyst to the anterior wall of the abdomen, there was great difficulty in finding the line of demarcation. In some remarks appended to this report, Dr. Atlee directs attention to an unfailing test which he applies in these cases, and which prevents the occurrence of such an untoward accident as the extended separation of the parietal peritoneum.

The pedicle, which was not large, and was of good length, was secured in a three-quarter inch space of Dr. Atlee's clamp. The right ovary was examined and found healthy. The tumor was unilocular, involving the left ovary, and, with its contents, weighed twenty-five pounds.

During the four days succeeding the operation the condition of the patient was excellent, not an unpleasant symptom presenting itself; and this in spite of her wretched surroundings. During this time the pulse did not exceed ninety. Death occurred on the ninth day. Dr. Fay writes in reference to the case as follows: "For the first four days I thought she would recover; but such nursing I have never seen, and I hope never will see again. Septicæmia was, I think, the cause of her death."

Remarks by Dr. Atlee.—The above case illustrates one very important practical point in the operation of ovariotomy. It is this: *immediately after making the incision through the walls of the abdomen, the index finger should be passed up to the region of the umbilicus, and if it can be swept freely across from side to side it must be within the abdomen.* This, of course, is an easy matter when no adhesions exist. It is always possible in parietal adhesions, when the finger is inside of the peritoneum. It is not possible, without the most unwarrantable violence, when the finger is between the layers of the abdominal parietes. The non-observance of this rule has led to the separation of large portions of the peritoneal layer of the walls of the abdomen, even when no adhesions existed, the operator having mistaken the peritoneum itself for an adherent cyst-wall. When, however, parietal adhesions do exist, the mistake may be more excusable and more readily made, particularly in such a case as the one just related, where the peritoneum is thickened and more strongly incorporated with the cyst-wall than with the wall of the abdomen. The most convenient and infallible test of being within the abdomen is *the ability to freely move the finger to and fro past the umbilicus.*

TRANSLATIONS.

ON THE INFLUENCE OF ARTIFICIAL RESPIRATION IN STRYCHNIA-POISONING.

By Dr. Julius Rossbach. Translated from *Centralblatt für die Med. Wissenschaften*, May 31,

BY WM. ASHBRIDGE, M.D.

DR. ROSSBACH was induced to perform these experiments to ascertain the method in which strychnia acts upon animal organisms, by the fact that he was never able to confirm the statements of Leube in regard to the effect of artificial respiration in saving the lives of animals to whom poisonous doses of this drug had been given. The animals used for the experiments were rabbits, and the poison was administered hypodermically, by introducing it into the jugular

vein, and by the stomach. The results of the several experiments were as follows:

I. Hypodermic Injection of Strychnia.—0.001 strychniæ muriat. given to rabbits of the weight of 1000 to 1280 grammes did not excite convulsions nor increase the reflex irritability to any observable extent.

0.002 given to rabbits of 1180 to 1300 grammes' weight excited, after fifteen minutes, tetanic spasms; the animals, however, recovered without artificial respiration, which in fact seemed to have no influence upon the appearance of the convulsions or upon their duration or intensity.

0.00275 of the poison killed all rabbits from 1150 to 1310 grammes in weight, whether artificial respiration was employed or not.

0.003 was absolutely fatal for all animals ranging in weight from 1205 to 1419 grammes, whether artificial respiration was resorted to or not.

From these experiments, in which the poison was injected hypodermically, the conclusion would be drawn that neither the character nor intensity of the spasm was affected by artificial respiration, nor was it in a single instance able to save life, its only effect being to keep up the pulsations of the heart for an hour or two longer.

II. Introduction of Strychnia into the Jugular Vein.—0.0005 strychniæ muriat. injected into the jugular vein of rabbits weighing 1000 to 1290 grammes appeared almost without influence; no spasm was induced.

0.00075 strychniæ muriat. caused, at the end of five minutes, violent tetanic spasms whether artificial respiration was resorted to or not; but still it was not an absolutely fatal dose, since rabbits weighing 1170 to 1220 grammes survived it without artificial respiration, one of 1620 grammes lived with this aid, while a third, of 1350 grammes, died without it.

0.001 excited similar appearances to 0.003 given hypodermically, with the exception that even when the most intense apnœa had been previously induced, the convulsions followed almost instantly the introduction of the poison into the veins, but even after this dose many animals lived without artificial respiration.

0.00125 killed rabbits of 1400 to 1590 grammes almost immediately, whether artificial respiration was employed or not, even when intense apnœa had been previously caused.

III. Strychnia introduced in the Stomach.—0.001 strychniæ muriat. excited, in animals weighing 1200 grammes, but transient and slight manifestations.

0.002 killed animals of 1010 to 1350 grammes' weight, even when intense apnœa had been induced; artificial respiration was not able to save one life.

From this, the conclusion of Leube that the action of strychnia in the stomach is more intense than if given hypodermically, is confirmed.

Artificial respiration, however, has no influence either in maintaining the life of an animal poisoned with strychnia, or upon the intensity or duration of the convulsions. The movements, indeed, needed to produce inspiration often furnish the impulse for an outbreak of the spasms. The prolongation of life which it is possible to attain by artificial respiration must be understood to be but a duration of the heart's action for the space of a few hours; for the other signs of life, as, for example, irritability of the cornea, are always wanting, and the pulsations can only be noticed by the ear upon the breast of the animal.

The case is similar to the condition due to a section of the spinal cord high up: the animal is fatally injured, but the pulsations of the heart can be kept up by artificial respiration for some time, as a heart cut from the body under certain conditions can be kept pulsating.

The conclusion, then, is that as a means of saving life in strychnia-poisoning, in rabbits at least, artificial respiration is of no value.

SO-CALLED SEPARATION OF THE RETINA.

By R. Berlin. Translated from *Centralblatt für die Med. Wissenschaften*

BY WM. ASHBRIDGE, M.D.

In a short time Berlin had an opportunity of observing eight cases of injuries to the ball of the eye caused by blunt instruments, and in all these cases the prominent symptoms were the following:

1. Moderate diminution of the central intensity of vision, without any disproportionate involvement of the peripheral power of vision.
2. Rapid episclerotic injection.
3. Great resistance of the sphincter pupillæ to the action of atropia.
4. Characteristic, gyrated, whitish-gray cloudiness of the retina.

In regard to this last symptom, Berlin asserts that the diminution of the power of vision, as a rule, reaches its maximum only when the cloudiness of the retina has commenced its retrograde metamorphosis, and after the entire disappearance of this symptom it remains several days. The coming and going of the serous infiltration and cloudiness of the retina usually extends over seventy-two hours. About the same time was needed for the experiments made upon rabbits in which blows upon the cornea were made with a glass rod, for the appearance and disappearance of the same symptoms. If the blows are inflicted upon the sclerotic, analogous changes are found not only upon the adjacent parts of the retina, but also upon the part directly opposite. This last is accounted for by Berlin by the resistance of the walls of the orbit. The contraction of the retinal vessels following the injury was in no case followed by their enlargement. This fact, among others, is made use of by the observer to disprove the separation of the retina which is assumed to account for the diminution in the power of vision, and he supposes that this effect is due to the violence done to the trunk of the optic nerve.

The pathological conditions proved by Berlin in the eyes of the rabbits subjected to his experiments were: a serous infiltration, or cloudiness, plaiting of the retina, which could only be regarded as a secondary product due to a hemorrhage between the choroid and the sclerotic. Finally, it was observed that, without exception, in rabbits the cause of the cloudiness of the retina and the diminution of the power of vision were not proportional; and it is in the highest degree probable that this is also true for the human eye.

PARALYSIS OF THE LEFT LOWER EXTREMITY AND THE BLADDER, DUE TO A NEUROMA ON THE ROOTS OF THE FIRST TWO SACRAL NERVES OF THE LEFT SIDE.

Reported by Dr. Löwenfeld. Translated from *Wiener Med. Presse*

BY WM. ASHBRIDGE, M.D.

The patient, F. K., was admitted into the hospital September 11, 1872; was the wife of a mason; at the time of her admission into the hospital was 46 years of age, and gave the following history of her case:

Five weeks previously she had been attacked with moderate pains in the sacral region, which from time to time increased in severity and gradually extended down the left thigh; no cause could be assigned for their appearance. She was finally obliged to give up her household duties, since locomotion became so painful that she was compelled to remain in bed.

For some days previous to her admission she suffered also from dull pains and a feeling of tension in the lower part of the abdomen; her general condition in other respects was unaltered. In the year 1853, after her fourth confinement, she suffered from an attack of inflammation of the womb, which confined her to bed for three months, followed apparently by perfect recovery, and her menstruation had been normal and her health good up to this attack from which she was admitted. Upon admission, her pulse and temperature were normal; her body was small, but well nourished; the thoracic organs were healthy. At the lower part of the abdomen was a tumor the size of a child's head, due to the distended bladder, from which nineteen hundred cubic centimetres of strongly acid urine, dark-brown in color and containing uric acid salts and earthy phosphates, was drawn off. No abnormal prominence or point of tenderness could be found along the vertebral column, and whilst lying upon her back no pain was felt by the patient. She still had power of motion to a considerable degree, although attended with pain radiating from the sacrum to the thigh of the affected side, while passive motion could be made in all directions. The sensibility in the affected limb was but little disturbed: only on the front and outer side of the left thigh could be noticed any diminution of sensibility as compared with the right. The appetite was good; defecation was normally performed. The patient during the eleven days following her admission was daily catheterized, and while in a state of rest was quite comfortable; but on the 22d of the month an attack of febrile symptoms came on, the temperature rose, the pulse reached 120 beats in a minute, and on the 25th an eruption characteristic of a mild attack of varioloid showed itself. She was transferred to the smallpox wards, and on the 1st of October returned again, having passed through a light attack of varioloid. At this time her condition was much more unfavorable than upon admission. Over the sacrum there was a bed-sore of considerable size; she had lost flesh, and the loss of motion of the left leg was complete; even passive motion induced intense pain. From the crest of the ilium down to the lower third of the thigh, sensibility was completely lost; on both surfaces of the foot there was slight sensibility. The urine was of a dirty grayish-brown color, alkaline, cloudy; specific gravity 1025; contained the earthy phosphates in increased quantity, and also a considerable amount of mucus and shreds of mucous membrane. In the sediment were discovered epithelium from the bladder, numerous mucus-corpuscles, pus-corpuscles in less abundance, and crystals of the triple phosphates and of urate of ammonia. During the following nine days the patient became gradually worse, with moderate febrile symptoms, failing appetite, the evacuations from the bowels remaining normal. On the night of the 10th of October she had a chill of an hour's duration; the next morning the skin presented a slight icterode hue; the paralyzed limb had entirely lost its sensibility, and the bed-sore was much increased both in depth and in extent. Two more chills followed, the surface of the body and the conjunctiva became of a lemon color, and on the afternoon of the 12th the patient died. At the autopsy, an examination of the spinal cord revealed the following:

The spinal cord was anæmic, somewhat œdematous; the roots of the first two sacral nerves, even up to the intervertebral ganglia of the left side, were surrounded by a round mass of connective tissue of a grayish-red color and rather larger than a bean in size. These masses of connective tissue were intimately united with the dura mater, which at these points was thickened and pale, and under the microscope they showed the characteristics of fibrous sarcoma.

In this case the spinal cord, so far as its texture was concerned, remained entirely unaltered, and the symptoms, whether the tumors took their origin from the dura mater or from the roots of the first two sacral nerves, must be accounted for entirely by the compression and atrophy of the nerves themselves.

The Restorative Force of Nature in Delirium Tremens (by Ely Van de Warker, M.D.: *N. Y. Medical Journal*).—Dr. Van de Warker commences his article by stating that, although the literature upon this subject is extensive, the profession, so far as treatment is concerned, with the exception of blood-letting, stands where it did in the old days of the three-bottle men. The use of chloral he looks upon as but a new method of meeting old indications, and he feels confident that accidents will occur from its administration if used in this disease.

The doses of opiates given he regards as dangerous, and thinks that the state of the system in this disease should not be designated as a tolerance of narcotics so much as a resistance of their effects; and as a possible explanation of the fatal result sometimes met with even in uncomplicated cases of delirium tremens, he suggests the rapid depression of the vital powers following large doses of narcotics.

Insomnia he looks upon as but a symptom, and thinks that the theory that if sleep is induced the disease is cured is erroneous, inasmuch as the muscular tremors and the hallucinations, though modified in form, may continue after the patient has slept. He divides cases of delirium tremens roughly into two classes: the first including persons habitually temperate who have the disease as a result of sudden excess, and the second containing those who are victims of long-continued excess, which must result in serious changes of the nerve-centres. In the first class insomnia is the most marked symptom, sleep is usually readily induced, and a cure speedily follows. In the second class it is almost impossible to procure sleep in the early stages, the mania is most active, and the tremors are marked. In these cases the insomnia is but a symptom of a grave pathological condition, and narcotics are of but little effect until after two or three days the morbid condition amends and sleep is procured either spontaneously or by a comparatively mild dose of an opiate. His remarks are intended to apply with more directness to this last class of cases. Dr. Van de Warker has treated several uncomplicated cases simply with Epsom salts or pil. cath. comp., using no narcotics whatever, and the results observed have been favorable: he noticed particularly the rapid convalescence of the patient, there being no period of prostration following the attack, and but little impairment of the digestive function.

Alcohol from Iceland Moss.—We learn that alcohol is made in St. Petersburg and the northern provinces of Russia from Iceland moss, and that this branch of industry has become quite extensive. In Finland, Archangel, Pskow, and Novgorod, brandy and alcohol are manufactured from the mosses and lichens growing there. The manufacture of lichen and moss spirits began in Sweden, and from there went to Finland. At the last Russian Industrial Exhibition specimens of the alcohol were exhibited which were made in the distillery at Wincilas and from the Lewin manufactory in the city of Borgo, as well as from the factory of Zadler and of Count Trabirki in St. Petersburg. German, English, and French manufacturers were well pleased with its quality. In Northern Russia it is said that this branch of industry brings in a net profit of 100 per cent., and in the interior countries 40 to 100 per cent.—*Druggists' Circular.*

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

POPULARIZING SCIENCE.

ONE of the distinctive features of the present decade is the immense impetus which has been given to the popularization of science.

In our leading daily papers learned correspondents discourse of geology and the flora of the lands they visit; copious reports of the meetings of savants are served up with the spiciest of literary condiments; and even the weather has technical editorials written concerning it. A department of science in our first magazine, and at least one popular serial devoted entirely to it, mark also the setting of the current. Even art is deriving inspiration from the dry bones of anatomical science; and M. Griset, a French artist, has given us some capital sketches of the pre-historic glory of man. One of these water-colors, entitled "The Neanderthal Man," represents our illustrious forefather with a profile just sufficiently suggestive of that of the Neanderthal skull to be very amusing, and a figure which has doubtless been conceived from reading Huxley's "Man's Place in Nature." The diminutive thumb, the monkey-like grasp of the stone hatchet, the elongated heel, the hirsute skin, and the short, slender leg, scarcely hiding beneath the scrawny skin the platycnemic tibia, are all there in their pristine ugliness.

Shades of art and science! even this sketch has not escaped the rage of the spoiler. In one of our illustrated papers it has recently been popularized,—every distinctive feature omitted, every characteristic overlooked, the whole point of the matter rasped away. So it is always when any but men of real scientific taste and knowledge attempt to popularize. But, worse than all, out from this reproduction of Griset's really sparkling sketch stares at us the unmistakable modern Esquimaux dog!

Verily, Science, though she may be courted, has, like the woman of old, suffered many things from many physicians.

And now the theatrical folk must needs be on the top of the wave, and add a piquance to the classic "Tempest" by introducing the Neanderthal Man in the character of Caliban. Despoiled of all his ape-like features save his hairy skin, he has had given him the face of an Indian and the canine teeth of a boar, and has been made of such nature that we might, as was said by a Massachusetts Senator of a certain statue, all fall down and worship without sin; for surely this Caliban is like nothing in the heavens above, in the earth beneath, or in the waters under the earth. Moreover, this bizarre figure is in direct opposition to the spirit of the text, where Caliban is frequently spoken of as compounded of fish and man,—as Trinculo says, "being but half a fish and half a monster,"—and as having "a very ancient and fish-like smell." To hades with such scurvy monsters! May they

> "all be turned to barnacles, or to apes
> With foreheads villanous low."

MEDICAL FELLOWSHIPS.

AMONG the many truths told us by Mr. Tyndall during his recent visit to this country, none were more needed to be told than those referring to matters of education. He said we needed above all things a little more pure science. The pursuit of truth for its own sake, especially that form of it embodied in the inductive sciences, would be, in his opinion, a saving clause to the corrupt tendencies everywhere seen in our public affairs. How far the so-called science of medicine may be included in the stricture of Mr. Tyndall may be a subject concerning which there is doubtless a great variety of opinion; but we believe that there need be none upon at least one phase of the question, viz., that very many individuals of influence in the profession have no sympathy with abstract scientific truth. If they do not entertain an outspoken contempt for the medical scientist, they look upon him as a fanatic to be good-humoredly indulged. Paltry encouragement is given to the few who devote themselves to research,—meeting with indifference and receiving warning for their temerity, where they

have a right to expect approval. "Leave off Science," says Nestor, "or you will be as poor as poverty!" and, unfortunately, Nestor is right. Magendie has made us his confidant on this subject, and this is what he tells us: "I had at one time but five sous a day to live upon, and a dog to keep besides." And we recall the story of Leuret, who, while a soldier, sold his rations that he might buy candles and books, only to die of over-work and of insufficient food. We know all this; and yet in every age we will have our Magendies and our Leurets. Would it not be wiser for Nestor to stop lecturing the votary, and use his influence towards securing him a decent livelihood?

It reflects no credit upon the profession that while in other departments of science fellowships or endowed professorships support the student, there are none in medicine. Were the medical scientist to cultivate his speciality with the same tenacity of purpose that marks the careers of his collaborators in other departments, he might earn, perhaps, his five sous a day, and be thankful for so much.

It would not be a difficult matter to endow several first-class fellowships in connection with our medical schools, to encourage research, particularly in anatomy, physiology, and therapeutics. These would have great influence in raising the standard of teaching, improving our reputation as scientific observers abroad, and in every way resulting to the advantage of those concerned. Cannot something be done in this direction by bringing the subject before the notice of those gentlemen whose munificent endowments to our charitable institutions we are so often called upon to record, or by inviting the attention of the alumni of our different schools to its importance?

MR. ERICHSEN'S LATE ILLNESS.

IT will be recalled by our readers that we announced a few weeks ago the serious illness of Mr. Erichsen, caused by an injury sustained in performing a surgical operation. From a letter dated London, August 11, just received by one of his friends in this city, and from which we subjoin a few extracts, it will be seen that his health has been fully restored much sooner than had been anticipated by his professional advisers:

"I am thankful to say, and I am sure that you will be pleased to hear, that I have quite recovered from my recent severe and serious illness, and that I am feeling stronger and in better health than before its occurrence."

Mr. Erichsen's illness, which came so near proving fatal, arose from an operation-wound while overworked and tired out by the labors of a long winter. He frayed the skin of the *left* index finger in tying sharply with compressed whip-cord a portion of the stump of a tongue which he had just excised for epithelioma. This slight injury was followed by extensive and intense inflammation of the hand and of the lymphatics of the arm, followed by general blood-poisoning, with metastatic intra-pelvic abscess and deposits in the *right* hand and left shoulder.

We congratulate Mr. Erichsen upon his rapid recovery; and we are sure that every member of our profession will cordially unite with us in wishing him renewed health and increased prosperity.

WE have long thought that those architects who make a speciality of ventilation have a hard lot of it. What with the inherent difficulties of the subject, the stupidity of some owners, and the confident half-knowledge of others, their trials must be many. According to the *British Medical Journal*, a new difficulty has arisen in the London courts in the persons of the high dignitaries the judges themselves, although it is stated that it would be difficult to suggest anything more ingenious and complete than the modes of ventilation practised at the Westminster courts, or to devise a more intelligent and careful surveillance.

"The problem, of course, is to change the contained air sufficiently to prevent it from becoming loaded with the products of respiration. It is possible to ventilate adequately the smallest space into which a man can be crammed, by producing sufficiently rapid currents of air; and means are at hand, in some of the courts, for blowing the judges and jury out of their seats, and carrying the wigs and papers of the barristers floating over St. James's Park. But the toleration of currents of air, or draughts, as they are called, is very limited, both with individuals and with bodies of men. Hence it is found necessary, whenever it is desired adequately to ventilate any building permanently occupied, to allow sufficient floor-space, and apertures of ingress and egress of such size as will give about twelve hundred feet of cubic air for each individual, and will afford facilities for producing a movement of air just sufficient to produce a total change of air about twice an hour. In the courts of law, however, witnesses, jurymen, and public are packed like herrings in a barrel; and to produce anything like the change of atmosphere necessary to afford a pure, cool and respirable air, a whirlwind must be blown through the court. The conditions to be satisfied at present are, in short, impossible. The difficulty is in some cases aggravated by the extreme susceptibility of some venerable members of the bench to anything like perceptible movement in the air. We have seen repeated written orders from Lord Chief

Justice Cockburn to close air-holes, close windows, and shut ventilators; and the rule of the judges is absolute in such matters. The bar and the public must endure the excess of discomfort as well as they can. But even where such susceptibilities do not exist, the present courts are so ill adapted to receive the crowds who are often packed tightly into them—not always the most dry, savory, and well-washed crowds—that it is impossible to ventilate them adequately without driving through them, while the courts are sitting, the four winds of heaven; and this is not to be thought of."

IN our miscellaneous column will be found an editorial written by that venerable apostle of gymnastics and physical culture, Dr. Dio Lewis, which, although decidedly and amusingly shrieking in its tone, has some force and truth in it. In acknowledging this, it ought, however, to be distinctly stated that the picture of the suffering caused by vivisection is excessively overdrawn, and the asserted frequency of its practice exaggerated. The number of the profession who have ever practised vivisection is in reality very small. We do think, however, that the practice of it by students of medicine, except under competent direction, should be discouraged by the professors. The best remedy for its abuse would be the affording of the necessary direction; and hence, as a means of humanity, we hope all our colleges will soon have attached to them physiological laboratories, where the young working-power now lost may be turned to good account.

After all, it is supremely comical to see a public opinion which allows the life of the horse to be slowly dragged out by the ceaseless toil of the street-car or crushed by the spur and goad of the race-course,—which applauds as sport the cruel daily maiming of thousands of birds,—it is comical, we repeat, to see such a public opinion raving against vivisection. The pain inflicted by vivisection is to the pain inflicted by sportsmen as an ant-hill is to the pyramid of Cheops.

IN a somewhat recent number of the *Bulletin Général de Thérapeutique*, M. Dannecy proposes the use of bread made from roasted flour for diabetic patients, instead of gluten biscuit. He asserts that roasted starch cannot be converted into glucose, and that bread made out of the various farinas so torrefied is greedily eaten by patients who have been restricted to the ordinary preparation of gluten until they have become thoroughly disgusted. Moreover, under its use the thirst lessens, and the digestive derangements are markedly ameliorated. The good effect upon the elimination of sugar by the kidneys is at least equal to that obtained by the exclusive use of the classical diabetic diet.

LEADING ARTICLES.

REMARKS ON THE NEW CHEMICAL NOMENCLATURE.

BY W. H. H. GITHENS, M.D.

(Concluded from page 764.)

UNDER the old system of nomenclature, the chemical compounds which were called salts were divided into two groups,—halogen salts and amphigen salts: the former were so called from sea-salt,—sodium chloride,—which was the type. The latter group were supposed to be formed by the union of two binary compounds: thus, potassium sulphate was considered to be a compound of sulphuric acid and potassium oxide. As it is impossible to prove such a theory, it is obviously better to adopt a simpler one, especially as the latter is capable of greater generalization. The new theory gives all of the oxygen to the acid, which then unites directly with the elemental base. Again, absolute acids, like SO_3 and N_2O_5, are known to exert no acid properties unless water be present. Thus the acid becomes possessed of an additional equivalent of oxygen, while the hydrogen acts as a base which is replaced by another element when a salt is formed. Thus, the exact composition of sulphuric acid would be SO_4H_2, of potassium sulphate $HKSO_4$, of sodium sulphate Na_2SO_4, of nitric acid $H_2N_2O_6$ (sometimes written HNO_3), etc.

The anhydrous compounds formerly called acids are now called oxides or anhydrides. The reason for giving the latter name is found in the fact that they may be formed from acids by the abstraction of water. Thus, SO_3 is sulphuric oxide or anhydride, PO_5 is phosphoric oxide or anhydride. In some cases this change gives old names to other bodies, as in the case of the compounds of hydrogen with oxygen.

$N_2'O''$ is now called hyponitrous oxide, formerly nitrous oxide.

$N_2'''O_2''$ is now called nitrogen dioxide, formerly nitric oxide.

$N_2'''O_3''$ is now called nitrous oxide or anhydride, formerly nitrous acid.

$N_2^{v}O_4''$ is now called nitrogen tetroxide, formerly hyponitric acid.

$N_2^{v}O_5''$ is now called nitric oxide or anhydride, formerly nitric acid.

$N_2'''O_4''H_2'$ is the present formula for nitrous acid.
$N_2^vO_6''H_2'$ is the present formula for nitric acid.

The earliest record that I have been able to discover of these ideas is in the writings of Laurent and Gerhard. These gentlemen, with great labor, went over the entire ground, but did not live to reap their reward in beholding its universal acceptance.

Compounds are classed as binary and ternary. Binary compounds are those whose atoms are directly united: they are formed of two substances only. In naming these compounds, the positive or basic constituent is first given, and then the name of the negative, the termination of which is changed to *ide:* thus, sodium chloride.

If the positive element unites with the negative with more than one equivalence, it is indicated by changing the termination of the positive to *ous* or *ic:* thus,

$Hg_2'O''$, univalent mercury and oxygen, form mercur*ous* oxide.

$Hg''O''$, bivalent mercury and oxygen, form mercur*ic* oxide.

Ternary compounds are those whose dissimilar atoms are united by the aid of some third element. Of the bodies thus formed, by far the larger proportion are compounds of oxygen. These bodies may be divided into acids, bases, and salts.

An acid consists of one or more negative atoms united by oxygen to hydrogen, as $\bar{S}—O_4—H_2$, sulphuric acid.

A base consists of one or more positive atoms united by oxygen to hydrogen, as $\overset{+}{K}—O—H$, potassium oxide.

A salt contains a positive atom or group of atoms united by oxygen to a negative atom or group of atoms: thus, $H\overset{+}{K}—O_4—\bar{S}$, potassium sulphate, $\overset{+}{Na_2}—O_6—\bar{N_2}$, sodium nitrate.

The terminations *ate* and *ite* and the prefixes *per* and *hypo* have the same value and uses as formerly.

Acids are divided into *ortho-* and *meta*-acids. Ortho-acids are those in which there are the same number of atoms of oxygen and hydrogen. Meta-acids contain an excess of oxygen. They are formed by taking water from the ortho-acids.

$S^{vi}O_6''H_6'$ is ortho-sulphuric acid.

$S^{vi}O_6''H_6'$ less $H_2O = SO_5H_4$, which is mona-meta-sulphuric acid.

$S^{vi}O_6''H_6'$ less $2(H_2O) = SO_4H_2$, which is di-meta-sulphuric acid.

The hydrogen in an acid is called basic hydrogen: it may be displaced by a more strongly positive atom or group of atoms.

Acids are called mono-basic, bi-basic, tri-basic, etc., according as they contain one, two, three, or more atoms of basic hydrogen. In ortho-acids the basicity is equal to the quantivalence of the negative atom.

The terms ortho and meta are also applied to bases with the same meanings. The hydrogen in a base is called acid hydrogen, and is displaceable by a more strongly negative atom or group of atoms. The positive or negative condition of hydrogen is only a relative one. If a compound containing hydrogen be decomposed by electricity, the other member of the compound will take its proper position at the positive or negative pole, and the hydrogen will in either case go to the other: so in compounds it acts either an acid or a basic part.

Ternary bodies are also formed with nitrogen as the linking element, and, as in the case of the oxygen compounds, these bodies are divided into three classes, which in this case are called *amides, amines,* and *alkalamides.*

An amide contains one or more negative atoms united by nitrogen to hydrogen: $\bar{I}_2—N—H$ is diniodamide.

An amine contains one or more positive atoms united by nitrogen to hydrogen: $\overset{+}{K}—N—H_2$ is potassamine.

An alkalamide contains both positive and negative atoms united by nitrogen: $\overset{+}{K}H—N—\bar{Cl}$ is chloro-potassamide.

An ammonia molecule consists of three hydrogen atoms united by nitrogen: thus, By exchanging a portion of the hydrogen for one or more positive atoms, an amine is produced; if for negative atoms, an amide, and if for both positive and negative, an alkalamide: they are, therefore, said to belong to the ammonia type.

To those who wish to look more closely into the subjects of which we have written, we take pleasure in recommending Barker's Elementary Chemistry: it is thorough, concise, and lucid.

REVIEWS AND BOOK NOTICES.

SIX MONTHS UNDER THE RED CROSS, WITH THE FRENCH ARMY. By GEORGE HALSTEAD BOYLAND, M.D., Ex-Chirurgien de l'Armée Française. Cincinnati, Robert Clarke & Co., 1873.

Perhaps we cannot give our readers a better idea of this interesting little book of nearly two hundred and fifty pages than by transcribing its brief preface. The doctor says,—

"During the siege of Metz, I found many leisure moments, and improved them by taking notes upon passing events, and writing an account of my personal experiences and adventures as Assistant Surgeon-Major in the 'Army of the Rhine.' They were made upon bits of paper; on my shirt-cuffs; in the lining of my képi, etc.: at times on the field of battle; at others while sitting on the floor of the barrack hospital, or reclining in my tent. They are composed without any pretension to literary merit, and are a simple statement of the facts told in my own language: as such I have the honor to place them before the public."

The doctor, we may say, has made good use of his shirt-cuffs: by the way, do they use paper cuffs in France? The book is written in a clear, straightforward manner,—written as though its author knew he had something to say, and simply said it. It is a popular work, containing nothing—so far as we have seen, and we have read most of it—technical, and has simply the interest of a narrative of adventures among most stirring scenes. We think that either in whole or in part it would form an excellent tract for the "Peace Society," showing as it does in a most forcible manner the unspeakable horrors of that hellish incarnation of human passions,—war.

THE CEREBRAL CONVOLUTIONS OF MAN REPRESENTED ACCORDING TO ORIGINAL OBSERVATIONS, ESPECIALLY UPON THEIR DEVELOPMENT IN THE FŒTUS. By ALEXANDER ECKER, Professor of Anatomy and Comparative Anatomy in the University of Freiburg, Baden. Translated by ROBERT S. EDES, M.D. New York, D. Appleton & Co., 1873.

This excellent little memoir is an attempt to lay an anatomical foundation for an accurate physiological and pathological knowledge of the human cerebrum, or, in other words, of an organology of the brain. It is, as it were, a minute topographical survey of the surface in which and under which lie the wonderful thinking and acting powers. From the very nature of the subject, it can have but little interest to the general mass of practitioners,—to any of whom, however, desirous of cultivating his memory we can commend it. To the profound student of cerebral life and disease we think the book will be most welcome. We have not as yet compared it with the cadaver; but, so far as we can judge without this, the work is as accurate as it is minute and thorough in its teachings. It certainly has cost its author a great deal of labor, and as the original has been appreciated abroad we trust the reprint will be here.

Dr. Edes has done his part well, the sentences being free from that German construction so often seen in translations,—arrangements of words which, whilst they may coincide with the Teuton's idea of verbal elegance, are as much out of place in English as the Englishman's "stove-pipe hat" and tight broadcloth dress-suit are out of place in the tropics.

GLEANINGS FROM OUR EXCHANGES.

THE VALUE OF SODIC BROMIDE AS A NERVOUS SEDATIVE (W. Ainslee Hollis, M.D.: *The Practitioner*, August, 1873).—Bromide of sodium, although known to have a therapeutic action analogous to that of the bromide of potassium, has lately somewhat fallen into disuse, while the latter salt has been recommended as a remedy for nearly every disease. The bromide of sodium has a pungent saline taste, is freely soluble in water, and forms a colorless solution. Shortly after it is taken into the stomach, a burning sensation is experienced at the epigastrium; this quickly passes off, giving place to drowsiness and sleep, followed by numbness in the extremities, which does not disappear until several hours after waking.

The following cases illustrate its beneficial action in nervous diseases. Fred. B., æt. 21 years, came under treatment for epilepsy, November 13, 1872. From early childhood the attacks had occurred three or four times weekly. He was treated for the first month with thirty-grain doses of bromide of potassium thrice daily, combined with one-third of a grain of extract of belladonna at night. As the attacks diminished but little in frequency, a seton was inserted in the back of his neck; for a short time after this the fits appeared to be less frequent and severe, but, as he complained of lowness of spirits and debility, one grain each of sulphate of iron and sulphate of zinc were ordered to be taken three times daily. This was continued only one week, as the symptoms returned with their former severity. Bromide of potassium was resumed, in forty-grain doses: this, with the addition of succus conii and a fresh seton, composed the treatment up to May 22, 1873, no effect being produced. On the 22d he was ordered three grains of bromide of sodium three times a day; and during the next week he had only two fits. On May 29 each dose was increased to fifteen grains, and on June 5 to twenty grains: in the interval he had several attacks of "petit mal," but no marked epileptic seizures. After this he improved much in general health, and had but one fit. In another case, a boy 14 years old, who had been subject to epilepsy from birth, after subduing the paroxysms by taking ten grains of bromide of potassium three times daily, suffered no return on the substitution of three-grain doses of the bromide of sodium, although he felt much depressed.

In a third case of epilepsy, the fits were checked by taking daily fifteen grains of the salt in three doses; here also general depression was marked. This depression of spirits very frequently accompanies the use of the medicine in a watery solution, and might possibly be counteracted by the administration of a tonic in combination.

In two cases of nervous excitement due to mental anxiety, and in one of epileptic vertigo, small doses of the bromide produced great relief, while in a case of insomnia in an old man it appeared to do harm. We have, therefore, in sodic bromide, where judiciously used, a valuable nervous sedative.

MIGRAINE FROM INJURY TO THE HEAD (*The Practitioner*, August, 1873).—Dr. Douglas Morton offers the following observations, derived from personal experience, in support of the theory of the "neurotic origin" of migraine. His first attack he attributes directly to an injury received on his head in a fall. At the time of the accident he felt no pain, but rather a sensation of being stunned; shortly afterwards his vision became affected so that on directing his attention to an object he could see only the left half of it. Closing first one eye and then the other, he found that the injury to his eyes consisted in destruction of vision in the right halves of both, for with either closed he could see the left halves of objects looked at with the other. He was also unable to select suitable words to express himself, or to pronounce more than one letter at a time, although still able to intelligently follow a conversation. Headache soon set in, and increased rapidly in severity, being associated with nausea and vomiting, on the occurrence of which the disturbance of sight disappeared. The vomiting soon ceased, but the headache remained for some time. After an interval of seven years a second attack occurred: in this symptoms were noticed which had been overlooked in the first, viz., the appearance of a figure, trembling in space, apparently suspended a few feet before the eyes, and a sensation of numbness in the right cheek and the right side of the

tongue, which came on with the headache and after the optical phenomena had disappeared. In each of his subsequent attacks the symptoms were repeated almost exactly.

Dr. Morton remarks that he has been unable in every instance to connect an attack with any deviation from his usual mode of life, and that, while frequently suffering with headache due to digestive disturbance, his *sick* headache was distinct in the peculiar grouping of its symptoms and in the obscurity of its etiology.

A cup of strong tea or a glass of sherry wine taken at the outset of the affection has produced relief. The best remedy, however, in the author's experience, is guarana: several cases have been reported in which great benefit was derived from this drug.

Slight Poisoning from the Medicinal Use of Phosphorus (Dr. Anstie: *The Practitioner*, August, 1873).—While it has been proved that there are many patients who will bear much larger doses of phosphorus than those generally used, the following case shows that instances may be met with in which there is a greater susceptibility than usual to the poisonous influences of the drug.

A gentleman, aged 33, first applied for treatment in May, 1872. He had been subject from boyhood to periodical attacks of migraine, always preceded by vertigo and attended with vomiting; the latter occurring while fasting, and consisting of an acid liquid. In December, 1871, though he had a marked attack of sick headache, there was no vomiting, and the disease became more like ordinary neuralgia. The remedies which had so far been employed were quinine and iron, with strychnia and arsenic, the latter doing most good. The treatment adopted in May, 1872, was a course of arsenic and cod-liver oil, with an increased quantity of food; he was also advised to confine himself less strictly to business. When seen again, one year afterwards, he had improved in general health, but, as the neuralgic tendency still remained, he was directed to take, instead of the above prescription, a pill containing gr. $\frac{1}{30}$ of phosphorus three times daily. These he took from the 5th to the 12th of May, but during the last two days suffered from a constant and increasing burning sensation at the epigastrium; his urine became dark, and was found on examination to contain both albumen and blood, but no casts. The nervous symptoms had increased, the pain being less neuralgic and more continuous than before, with exacerbations each morning and evening, whereas formerly there had been only monthly paroxysms of pain. On May 14, after two days' rest from phosphorus, the renal and gastric symptoms having disappeared, he took, an hour before the morning exacerbation of pain was expected, five grains of quinine, and, singularly enough, never had any return of pain. From this time he steadily improved, though medical treatment was not resumed.

It might be supposed that the single dose of quinine produced the cure: he had, however, been previously saturated with it without benefit, and unless some powerful impression had been made upon the nervous system by the phosphorus, it is not probable that the quinine would have done any good.

The burning pain in the stomach, with the temporary hæmaturia relieved as soon as the medicine was discontinued, would seem to show that there was phosphorus-poisoning in this case. Thus it is possible that a patient may suffer slight degrees of phosphorus-poisoning from less than three-quarters of a grain in minute doses distributed over seven days. Such cases must, however, be quite exceptional.

A New Remedy for Dysentery (*Canada Lancet:* by William Kerr, Surgeon).—Twelve years ago an accidental circumstance led Mr. Kerr to attempt an improvent in the treatment of dysentery. Commencing with camphor and henbane added to opium, he came to the conclusion that the most efficient combination was one of opium, henbane, hemlock, stramonium, and digitalis. Although this as a rule was satisfactory, still failures sometimes occurred; and, concluding that some plants not found in the officinal list might possess efficacious properties, he began a series of experiments with some of the plants indigenous to Canada, not found in the Pharmacopœia. Sium lineare supplied the place of hemlock, this latter being found sometimes to cause pain in the bowels, while the former gave relief, and dulcamara supplanted henbane, being found to act more beneficially in the combination. The combination finally employed contained the following ingredients: opium, stramonium, dulcamara, digitalis, Sium lineare, Cicuta maculata, and Conio-selinum Canadense, the first four being officinal, the remainder non-officinal. All these are more or less narcotic, while some possess diuretic properties.

The combination without opium is slightly aperient, improves the appetite, promotes sleep, and tends to heal ulcerations of the mucous membranes. The office of the opium in dysentery is only to check the frequent motions of the bowels, the curative power being due to the other ingredients. In infants, and with some adults, digitalis does not act favorably, and in its place squills is substituted. Of either digitalis or squills but half a part is used; the other constituents are used in the proportion of a full part; the portion of the plant used is the leaf, excepting of course the opium and squill. The dose for an adult is six and one-half grains. This formula has been accepted after a series of trials extending over five or six years, more than thirty plants having been experimented with. The combination has been in use for seven years, and the concurrent testimony of several physicians as to its efficacy is brought forward. It has been employed not only in Canada, but also in other latitudes, in the Southern States, on the west coast of Africa, etc., and there is a remarkable uniformity in the testimony of all who have employed it. The combination has also been used with advantage in chronic dysentery and cholera infantum, and in some cases of summer cholera. The relief given is usually marked after the first few doses, and a cure in most cases of dysentery was attained in a week. From its success in so many severe cases of dysentery, summer cholera, etc., Mr. Kerr suggests the applicability of the combination to that still more terrible disease, Asiatic cholera.

MISCELLANY.

Vivisection.—Of all the chapters in the history of my profession, no other makes one breathe quick, and the cold sweat start, like that of vivisection. Perhaps my younger readers may not know what vivisection means. The dissection of an animal while alive for the purpose of making physiological investigations. With cutting, and burning with fire and acids, with starvation and thirst, it is possible to make the sufferings of a dog, for example, during his week or month in the physiologist's laboratory, something which the imagination would find it difficult to grasp. Then consider the number of dogs, and other animals, which physiologists have tortured to death under pretence of scientific investigations. That eminent physiologist, but indecent savage, Spallanzani, lived for many years in the midst of a hell of cries, yells, groans, shrieks, and

moans, proceeding from thousands upon thousands of animals undergoing his experiments. I ask my medical brethren what advantage to science came of it all? I have been a student of physiological researches and discoveries, and I affirm that of the myriads of helpless creatures that have been tortured in this way, not one in a million has made the least contribution to science. A great intellectual genius, like one of the Bells, or, perhaps, Brown-Séquard, reports an experiment upon some animal, with his deductions. Forthwith an army of brainless imitators get their dogs and begin. Of course there is not the least probability of any good coming of it all, but it has a scientific appearance. The poor helpless creatures meantime, all day and all night, suffer on, while the would-be physiologist makes notes, which in due time he will inflict upon some medical society, and, though nobody will get a single valuable suggestion, a few of the more brainless of the members will fancy that Dr. —— is, somehow, a scientific investigator, while the investigator himself rests his weighty head on his hand and sighs to think that he is one of the great physiological explorers. Hundreds of thousands of medical men have practised vivisection. Not half a score of them have contributed an idea to physiology. The boys in Harvard Medical College get the fever of vivisection every winter. They read in the journals that some German physiologist has tried this or that experiment upon a rabbit or a dog, perhaps an experiment which makes one's heart stop to read about, and these youngsters set about starting their inquisition. About two months ago, one of the young men from Harvard told me of some experiments the vivisectionists of the class had been making; and I honestly declare that I cannot recall that description without a shudder, even at this distance. I trust they will try next winter the law against cruelty on those Harvard vivisectionists.

Go and ask the eminent physiologists among the professors in Harvard, and they will tell you exactly what I tell you of the usefulness of vivisection.

Among the Romans, a gladiatorial show in which some horrible thing did not occur was regarded as a tame fizzle. The savage is ecstatic only when the tortures of his hapless victim are fiendish. Down in the animal nature of many a civilizer there is not a little of this passion for the horrible. It is this which gives zest to vivisections.—*To-Day.*

Freckles.—For the benefit of young persons afflicted with freckles, we would inform them that powdered nitre, moistened with water, applied to the face night and morning, will soon remove all traces of them.—*Druggists' Circular.*

Women Students at Zurich.—The Russian decree relative to women students at Zurich has produced great excitement in that town. All the newspapers are unanimous in condemning the arbitrary conduct of the Russian government in the matter, though several of them admit that the Russian women students often behave in a manner discreditable to their sex. One of the professors of the university of the town observes, in a letter to the *New Zurich Gazette*, that the expulsion of the Russian women from the university will probably be followed by a large increase in the number of the women students from other countries, as German, French, and English women have hitherto been deterred from going to Zurich for their education by the improper behavior of the Russian women who attend the lectures there. A correspondent of the *Cologne Gazette* asserts that upwards of one-half of the Russian women students at Zurich live disreputably, and that many of the Swiss families in the town have consequently refused to receive them in their houses. That some belong to secret political societies is also a matter of notoriety: one of them even acted as vice-president at a "red" meeting of working-men. The Russian women students have now decided, after some stormy meetings, that all but two shall leave Zurich next term, and proceed for the completion of their studies to Paris, Leipsic, Munich, and Heidelberg.—*Medical Press and Circular.*

Emotional Insanity.—At a recent meeting of the New York Medico-Legal Society, David Dudley Field, Esq., in discoursing upon "Emotional Insanity," concluded as follows:

"Children under the age of discretion, idiots, and imbeciles are not within the discipline of criminal law.

"The mental unsoundness of other persons, commonly designated as insanity or mania, is in itself, or is attended by, disease of the brain, so that no heat of mere passion, and no degree of mere frenzy, can in any just sense be pronounced insanity by either of the professions.

"That neither perceptional nor emotional insanity by itself, nor both together, can be accepted as excuse for criminal responsibility.

"That intellectual or volitional insanity absolves from criminal responsibility when, and only when, the reason has lost either the power of choice or the power of controlling the will.

"That in every case of acquittal on the ground of insanity the defendant should be forthwith placed in a lunatic asylum, and there kept until it is proved that he is restored to such a state of sanity as to remove all apprehension of a recurrence of the disease.

"That the present gradation of punishments is unsuited to the present condition of medical learning, and a change is required which shall make the law punish not only according to the harmfulness of the outward act, but according to the quality of the inward spring of action."

Gordenio.—William Gordenio was the first person upon whom the degree of Doctor of Medicine was bestowed. He received it from the college at Osti in 1320. —*Canada Medical Record.*

Keokuk boys exhibit their courage by buying half-ripe watermelons and eating them in the shade of bulletin-boards posted over with cholera-medicine advertisements.

EXERCISES ON ANÆSTHESIA.—We find in the *Buffalo Medical Journal* the following curious programme of a public lecture on Anæsthesia, lately delivered in New York:

"*Order of Exercises.*—Organ Voluntary. History of Anæsthesia, Dr. J. Marion Sims. Chemistry of Anæsthetics, Prof. R. Ogden Doremus, M.D., with Experiments. Practical Application of Anæsthetics in Surgery, Professor Frank H. Hamilton, M.D. Address by Rev. Henry Ward Beecher. Organist, Mr. Walter. Mayor Havemeyer will preside. For this occasion Mr. William Steinway has kindly tendered the use of Steinway Hall, Wednesday evening, May 21, 1873, at 8 o'clock."

It is a curious illustration of the difference of "the point of view," that this display was promoted by a number of the most eminent physicians and citizens of New York, and evidently suggests to their mind nothing which savors of the ludicrous or unseemly. No one would be bold enough on this side of the water to attempt what appears to us as incongruous a series of "exercises" as were ever presented on the boards of a theatre.—*British Medical Journal*, July 19, 1873.

"MRS. WINSLOW'S" SOOTHING SYRUP.—In the City Registrar's report of Providence, Rhode Island, for July, Dr. Snow says:

"There were two deaths in July from poisoning: one was from an overdose of morphine; the other from Mrs. Winslow's Soothing Syrup. There ought to be some power to stop the sale of a rank poison like Mrs. Winslow's Soothing Syrup under the false pretence that it is perfectly safe."

WE are glad to hear that the young lady upon whom Dr. Robert Battey, of Rome, Georgia, performed the extraordinary operation called normal ovariotomy, a year ago, has not only survived, but is in most excellent health. Her former pains have entirely ceased. Curiously enough, she had a flow from the womb, resembling the menstrual flux, every two to four weeks, up to a few weeks ago, since when she has seen nothing of it. —*Boston Medical and Surgical Journal.*

THE *Univers* announces with great joy that Mr. Darwin was rejected by 26 against 6 votes as corresponding member of the French Academy of Science. The six votes were given to him by the "friends of the Apes."

HOSPITAL APPOINTMENT.—Dr. J. Ewing Mears has been appointed surgeon to the St. Mary's Hospital, vice Dr. A. D. Hall, resigned.

DR. WILLIAM PEPPER has removed to 1811 Spruce Street.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM AUGUST 19, 1873, TO SEPTEMBER 1, 1873, INCLUSIVE.

WRIGHT, J. P., SURGEON.—Granted leave of absence for thirty days. S. O. 178, Department of Dakota, August 13, 1873.

BROWN, HARVEY E., ASSISTANT-SURGEON.—To proceed to Key West, Florida, and report to the commanding officer, Department of the Gulf, for assignment to duty. S. O. 170, A. G. O., August 22, 1873.

KINSMAN, J. H., ASSISTANT-SURGEON.—Granted leave of absence for sixty days. S. O. 67, Military Division of the Missouri, August 11 1873.

MAGRUDER, D. L., SURGEON.—Leave of absence extended thirty days. S. O. 171, A. G. O., August 23, 1873.

KNICKERBOCKER, B., ASSISTANT-SURGEON.—Leave of absence further extended thirty days. S. O. 173, A. G. O., August 27, 1873.

NOTSON, WILLIAM M., ASSISTANT-SURGEON.—Assigned to duty at Fort Gratiot, Michigan. S. O. 106, Department of the Lakes, August 26, 1873.

CARVALLO, CARLOS, ASSISTANT-SURGEON.—Assigned to duty at Fort Mackinac, Michigan. S. O. 106, c. s., Department of the Lakes.

KING, W. H., ASSISTANT-SURGEON.—Assigned to duty at Newberry, South Carolina. S. O. 151, Department of the South, August 26, 1873.

RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FROM JULY 27 TO AUGUST 30, 1873.

DISEASES.	*Adults.*	*Minors.*
Abscess	5	1
Albuminuria	2	...
Anæmia	...	1
Aneurism	3	...
" of the Aorta	5	...
Apoplexy	20	1
Asphyxia	...	2
Asthma	2	...
Burns and Scalds	2	3
Cancer	10	...
" of Liver	1	...
" Pancreas	...	1
" Pylorus	3	...
" Rectum	1	...
" Stomach	7	...
" Uterus	7	...
" Vagina	1	...
Casualties	9	11
Cerebro-Spinal Meningitis	3	18
Child-bed	3	...
Cholera Infantum	...	397
" Morbus	22	2
" Sporadic	11	...
Cirrhosis of Liver	5	...
Colic	1	...
Compression of Brain	1	...
Congestion of Bowels	...	1
" " Brain	17	35
" " Heart	...	1
" " Liver	...	1
" " Lungs	3	2
" " Stomach	...	1
Congestive Chill	1	...
Consumption of Bowels	5	...
" Lungs	153	21
Convulsions	2	70
" Puerperal	5	2
Cramps	...	5
Croup	...	4
Cyanosis	...	7
Debility	50	67
Diarrhœa	17	14
Diphtheria	...	9
Disease of Brain	5	3
" Heart	45	7
" Kidneys	8	...
" Liver	4	...
" Spine	1	3
" Stomach	1	...
Dropsy	17	3
" of Abdomen	1	...
" Brain	...	21
" Chest	3	1
" Heart	4	2
" Liver	...	1
" Ovaries	1	...
Drowned	18	7
Dysentery	13	6
Effusion on Brain	2	5
Emphysema of Lungs	1	...
Empyema	1	...
Enlargement of Liver	1	...
Epilepsy	8	2
Erysipelas	1	4
Fatty Degene'n Kidneys	1	...
" Liver	1	...
Fever, Brain	1	...
" Congestive	3	...
" Gastric	1	...
" Malarial	2	...
" Nervous	2	...
" Puerperal	2	...
" Remittent	3	1
" Scarlet	...	7
" Typhoid	26	12
" Typhus	2	1
Fracture of the Leg	1	...
" " Skull	1	...
" " Spine	1	...
Gangrene	2	...
Heart Clot	2	...
Hemorrhage	3	1
" Bowels	1	1
" Lungs	2	...
" Uterus	1	...
Hernia	2	...
Hooping-Cough	...	10
Inanition	3	26
Inflammation of Bladder	2	...
" Brain	11	44
" Bronchi	3	9
" Heart	...	2
" Kidneys	1	...
" Larynx	1	1
" Liver	4	2
" Lungs	21	19
" Peritoneum	12	5
" Pleura	1	1
" Stomach & Bowels	20	40
" Uterus	2	...
Intemperance	1	...
Jaundice	1	3
Malformation	...	1
Mania a potu	4	...
Marasmus	3	129
Measles	...	2
Murder	2	...
Old Age	51	...
Paralysis	16	1
Poisoning	3	2
Pyæmia	...	1
Rheumatism	4	...
" of Heart	1	...
Scrofula	1	3
Septicæmia	1	...
Smallpox	...	1
Softening of Brain	9	1
" Heart	1	...
Sore Mouth	...	5
Still-Born	...	72
Suffocation	2	1
Suicide	8	...
Sunstroke	6	1
Syphilis	...	1
Tabes Mesenterica	1	1
Teething	...	11
Tetanus	4	3
Tumors	1	...
Unknown	2	1
Uræmia	1	...
TOTALS	780	1164

SATURDAY, SEPTEMBER 13, 1873.

ORIGINAL LECTURES.

A LECTURE
ON CHRONIC CERVICAL METRITIS.

USE OF THE ACTUAL CAUTERY.

BY F. H. GETCHELL, M.D.,

Clinical Lecturer on the Diseases of Women and Children in the Jefferson Medical College.

AMONG the most obstinate cases met with by the gynæcologist are those of chronic inflammation of the parenchyma of the neck of the uterus. This condition occurs oftenest among women who have given birth to children, and parturition and abortion are no doubt the most frequent causes. The disease may exist for some time without giving rise to much pain or uneasiness, but in cases of long standing the discomfort is generally very great. You will find the patient will complain of constant pain in the lumbo-sacral region of a dull, aching character, accompanied by a dragging sensation in the loins, and in many cases by a sharp pain in the region of the left ovary. The increased weight of the uterus always causes more or less prolapsus, and these patients will often tell you that they feel as though "every thing inside them was falling away." The prominent sympathetic symptoms are indigestion and all its accompanying annoyances, such as loss of appetite, nausea, constipation, and flatulence, often causing a semi-tympanitic condition of the abdomen that vexes the patient exceedingly. You will find it a very common thing for these patients to complain that they have not a dress they can wear, on account of the puffing up that is sure to come on a short time after eating. Headache is a very constant symptom; and, while the cephalalgia may exist in any part of the head, it is said by some authors to be located so generally at the top that pain at the summit of the head is by them considered pathognomonic of inflammatory disease of the cervix uteri. I have not found this to be the case; but, while I have found headache to be a very constant symptom of cervical metritis, in a majority of the cases it has been located in the frontal region, and not at the top of the head. You will find that most of these patients are very despondent and low-spirited, and in cases of long standing, particularly if they have been under treatment for some time without benefit, you will often find it very difficult to convince them that there is any hope of improvement. It is a remarkable fact that the mental depression experienced by the patient is often in striking contrast with her general appearance. It is no uncommon thing to see one of these patients presenting the appearance of perfect health, and to learn from her that life is a positive burden, and nothing depresses her more than want of sympathy on the part of her friends, accompanied with insinuations that her troubles are imaginary. This fact should always be borne in mind; and because the patient is fleshy, and to all appearance healthy, you must not decide that she complains without cause, till you have made a thorough investigation of the case.

The diagnosis of chronic cervical metritis is not attended with difficulty, and it is chiefly by the touch that you will ascertain whether the case is one of chronic inflammation of the uterine neck. You have no use for the speculum until you have made a thorough digital examination: the speculum is a therapeutic instrument, and is not to be compared with the educated finger as an aid to the diagnosis of uterine diseases. On introducing the finger within the vagina, you will find the uterus low down in the pelvic cavity, the cervix very much enlarged, in some cases to the size of a woman's fist. On pressing the finger firmly against the neck of the uterus, you will find it to be very hard; so firmly condensed is the tissue that all the elasticity of the healthy organ has gone, and we have hypertrophy and induration of the entire cervix instead. The os is generally patulous, and will often admit the end of the finger; but this is not always the case, for you will sometimes find the cervix enormously hypertrophied and the os will barely admit the uterine sound. By bi-manual palpation and the measurement of the cavity with the sound you will be able to diagnose the case from one of general metritis; and you will not confound a case of chronic cervical metritis with one of simple congestion if you remember that in the one case we have the cervical parenchyma injected with blood and communicating a soft elastic cushiony feel, softer than in the normal condition of the uterus, while if the enlargement be due to chronic inflammation we have an increased growth of the connective tissue, which exists in much larger quantity in the cervix than in the body of the uterus, together with an effusion of plastic lymph, which renders the cervix so dense and firm that you will at once recognize the existing condition as one of hypertrophy and induration.

In many cases the epithelium is gone in spots or patches, and there is hypertrophy of the villi. A variety of names are given to this condition of things, but the only point that I wish you to remember in this connection is that these ulcers, if we may call them such, are caused by the inflammation, and are not the cause of it: the treatment is the same whether they exist or not. In some cases we have profuse leucorrhœal discharge, in others none at all: this depends upon the extent to which the cervical mucous membrane is involved in the inflammatory action.

In regard to the treatment, as I have said before, these cases are often very obstinate, and many of them go the rounds, and months and years go by and the lumbo-sacral back-ache is always there. Still, notwithstanding this discouraging picture, I believe if the patient is willing to follow your directions, and is content to wait a reasonable time for results, you will be able to reduce the most densely hypertrophied cervix to a healthy condition. If the case has been under treatment before you are called to the patient, the chances are that she has had solid

nitrate of silver applied once a week for a longer or shorter time; it matters not which, for the hypertrophied and indurated cervix may be touched with nitrate of silver every week till doomsday without reducing its size. In order to substitute a healthy reparative inflammation for an unhealthy, unmanageable condition, you must cauterize; and nitrate of silver is not a cautery: it acts in these cases as little more than an astringent; the most it does is to cause a slight shedding of the epithelium. You do not apply the powerful cautery to reduce the size of the uterine neck by destruction of the tissue by burning it away, but you apply it to set up a subacute inflammation, under the influence of which the induration and hypertrophy will subside and the uterine structure resume its healthy elasticity. The strong caustics most frequently used in these cases are the acid nitrate of mercury, potassa cum calce, potassa caustica, and the actual cautery. As the last is the only one I ever use, I will describe the manner in which I use it, without further reference to the others. The idea of the actual cautery is always alarming to the patient, and may be said to remind us of the mediæval tortures; and if we were obliged to use live coals, bellows, and red-hot irons, I fear we should get few women to submit to the treatment; but by the use of these little sticks of charcoal, that I show you here, you are able to do away with all that is alarming about the actual cautery, and to apply it to the uterus without informing the patient what kind of an application you are about to make. These little sticks are made of nitrate of potash, charcoal, and pulverized acacia, in the following proportions:

℞ Potass. nitrat., gr. xx;
Carbo ligni, ℥vij;
Pulv. acaciæ, ℥j;
Aquæ, q. s. M.

This paste is formed into sticks; the most convenient size I have found to be about two inches long and about as large around as the little finger: the ends of the sticks may be rounded to a point; after being allowed to dry they are ready for use. If you hold the end of one of these sticks in the gas-flame for a moment, you will convert from half to three-quarters of an inch of it into a live coal: this you can do in another room, thereby avoiding the display of combustion before the patient. When once the end of the stick is thoroughly ignited you can put it down until you are ready to use it, without any fear of its going out, for it will continue to burn until the entire stick is consumed, which will require for a stick two inches long from fifteen minutes to half an hour. The patient being placed in a proper position, you introduce the speculum, which must be a conical one, and may be made of wood, ivory, or block tin; and I have often used the ordinary glass speculum. There is not heat enough from the caustic to do any harm if a glass one is employed; but the wooden one that I here show you is the one I prefer. Having introduced the speculum and wiped the cervix dry, you take the caustic in the forceps and apply it, about four or five lines from the os, to the lip that is most hypertrophied (for in some of these cases one lip of the cervix will be three or four times the size of the other). Now, if you make slight pressure for a few seconds, you will destroy the tissue over a space of about the size of a three-cent piece and for about two lines in depth. The pain is very slight,—but little if any more than that caused by the application of nitrate of silver. On withdrawing the cautery I sponge the parts with cold water. I then introduce a pledget of cotton saturated with glycerin, and direct the patient to remain in bed for the next forty-eight hours, and to keep her room, reclining on the lounge for the greater part of the time, for three days more. At the end of the first twenty-four hours you may remove the pledget of cotton by pulling upon the thread, and then inject the vagina with cold water; this may be done every day, until the slough comes off, which is generally in from five to eight days. I then paint the cervix every fourth day with the following:

℞ Potass. iodidi, ℥ss;
Iodinii, ℈iv;
Glycerinæ, ℥j. M.

The actual cautery may be applied with advantage once every month, and the best time is from five to ten days after the cessation of the monthly discharge. If you have the full co-operation of the patient, you will be able to reduce the most densely hypertrophied cervix in from three to five applications. In regard to danger from the use of the actual cautery, of course it would be very easy for a bungler to do harm with it, and great care should always be exercised in the use of any caustic: so far, I have never had any difficulty with it, and I have been using it for several years, and believe it to be more manageable and less likely to do harm than the potassa fusa that is so often used in these cases. I wish you to understand that I only recommend you to use the actual cautery in those cases in which the parenchyma of the cervix is the seat of hypertrophy and induration intractable to agents of less power.

ORIGINAL COMMUNICATIONS.

TWO CASES OF CIRCUMCISION.

BY W. H. WINSLOW, M.D.

A HEALTHY, robust man, æt. 27 years, a cooper by occupation, unmarried, who said he had never been sick in his life, and who had passed through the battles of the Wilderness unscathed, applied for relief from a very much contracted preputial orifice. He stated that he could always retract the prepuce behind the corona glandis perfectly, until recently; that he had never had any disease about the penis, and that the foreskin had been gradually contracting since six weeks before, when he had noticed, after a night of sexual indulgence, that the margin was chafed, fissured, and swollen. This condition had increased in severity. There was a rough, scaly, cicatricial appearance of the foreskin, and it was thickened by subcutaneous

deposits of fibrin. The fissures were widened here and there, forming small ulcers, which were very tender and painful and discharged sanious pus.

There was a slight offensive puriform discharge from the interior, indicating retained secretions and balanitis, and the foreskin was so much contracted and puckered that a probe of one-eighth inch diameter only could be introduced. The foreskin above was thin and flaccid, and when urination took place it became bulbous, owing to the quicker ingress from the true meatus than egress from the narrowed orifice. This caused pain along the urinary tract; and he complained of distressing priapism whenever he was in the society of women.

There were no signs of herpetic eruption. The inguinal and other glands were normal, and no symptoms of specific taint could be elicited. I was at a loss to determine whether his condition was due to psoriasis, which it somewhat simulated, or to an inflammation produced by the primary lesions and kept up by the unhealthy discharges and the irritation engendered by the nature of his daily labor.

The phimosis called for an operation, and I therefore removed an oblique ring of the diseased foreskin, attached the mucous membrane to the derma along the edges by sutures, and controlled the rather free hemorrhage by ice. The under side of the corona was covered by the mucous membrane one-eighth of an inch anterior to the edge, partially obliterating the frænum,—probably from balanitis; but its edge and depression behind were in normal relation upon the dorsal aspect. Recovery was rapid and satisfactory.

Another young, healthy man, æt. 23 years, applied for treatment of a gonorrhœa which he had contracted three months previously, for which he had been treated unsuccessfully by several physicians, though he had taken medicines *ad nauseam*.

Upon examination, there was found an extreme degree of phimosis, which the patient said had been present since he could remember anything, and which was proved congenital by the subsequent operation. The opening in the foreskin would only admit the smallest probe, and considerable manipulation was necessary to introduce it, as the redundant skin made an indirect oblique valvular aperture.

The prepuce was adherent to the glans, except for a space of about one-fourth of an inch in diameter, just around the meatus urinarius, and upon squeezing the organ there was a copious puriform discharge. Urination was tedious and painful, and he said he suffered much from supra-pubic distress in damp weather, from which some degree of retention was evident. Occasionally he would have a heavy aching feeling in the lumbar and sacral regions, with formication along the calves of the legs, and a peculiar lightness of the heels. He stated that at such times it seemed as if his feet would fly upwards and backwards when he walked. At times, when he got much excited, this peculiar pain would occur, and pass away some time after the emotion, leaving him nervous and irritable. It was very evident that he suffered from spinal irritation and paroxysmal congestion, which ultimately might lead to paralysis and other evils. It was also evident that the failure to cure his clap had resulted from the malformation of the penis, which required operation.

A perpendicular incision was made through the foreskin, and each flap dissected around and backwards along the glans; but so dense and firm was the attachment that it was difficult to find the true limits of the tissues, and the glans was nicked and bled freely in several places.

The patient, having refused an anæsthetic, fainted when the dissection had reached the edge of the corona; and upon recovery it was deemed best to postpone any further dissection backwards. A portion of each flap was removed, leaving the foreskin with a clean circular margin around the glans; and, as there was no mucous membrane to attach to the border of the cutis, and the latter had retracted to the corona, it was dressed with cotton and Goulard's extract diluted, and the patient walked cheerfully home.

The next day, expecting to find a furious inflammation, I was somewhat astonished, upon calling at his boarding-house, to be directed half a square away, where it was found he was visiting his *fiancée*. The parts healed kindly, and in ten days treatment was begun for the gonorrhœa, from which he soon recovered with a very respectable-looking penis, the foreskin making a smooth surface from the edge of the corona posterior.

The spinal affection disappeared after a few weeks, under the use of the bromides and small doses of fluid extract of ergot; and eight weeks after the operation, upon picking up the *Ledger*, I had the gratification of seeing his marriage-notice; but my apples were partly ashes, from the fact that I was minus a portion of my fee.

743 South Twentieth Street.

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

SERVICE OF DR. F. F. MAURY.

Reported by Dr. J. Wm. White, Resident Physician.

FOUR CASES OF EXCISION OF THE HIP-JOINT.

CASE I.—L. T., æt. 9½, was admitted to the Children's Asylum of the Philadelphia Hospital in the spring of 1869, suffering from ordinary coxalgia, with severe pain in the knee of the affected side. She was at first confined to her bed, lying with her leg drawn up, the knee thrown outward, and the foot in contact with the buttock; but she subsequently improved so that she was able to walk with a crutch, the thigh being flexed on the pelvis, and the foot abducted and everted.

In June a tumor appeared on the outer side of the thigh, about five inches below the anterior superior spinous process of the ilium. In July there was distinct fluctuation, the right buttock was atrophied, and the gluteal crease displaced; the thigh of the diseased side and the back could not be made to rest upon the same plane. In August the abscess opened and discharged its contents. Davis's apparatus was applied, and the child was enabled to walk about with some ease and comfort for several months; but in January, 1870, the formation of a second abscess on the side of the thigh was attended with much emaciation, debility, and

marked anæmia. A bursal inflammation over the left elbow, followed by extensive suppuration, also aided in weakening and depressing her, and her general condition steadily deteriorated until November, when she was seen and examined by Dr. Maury. Both abscesses had left sinuses, into the outer of which a probe passed upward, outward, and slightly backward for four and a half inches came in contact with dead and eroded bone. A similar result was obtained by probing from the anterior and inner aspect of the thigh. Distinct crepitus was both heard and felt when the limb was moved, the great trochanter was displaced upward so that its superior margin was almost in contact with the ilium, and the thigh was much atrophied, its circumference at the middle being only eight inches, while that of the sound limb at a corresponding point was eleven inches. There were, however, considerable thickening and induration about the hip.

Iron and quinine were administered; she was placed on a generous and nutritious diet, and on December 10 Dr. Maury excised the hip-joint, in the presence of Drs. Allen, Pancoast, Brinton, Ashhurst, Packard, Freeman, Townsend, the resident staff of the hospital, and a large clinical class.

Operation.—The child having been brought under the influence of chloroform and placed upon her left side, a double-S-shaped incision, eight inches in length, was made through the skin and subcutaneous tissue on the outer side of the joint, commencing near the upper margin of the dislocated trochanter major, and extending downward. A second incision down to the joint laid open the capsular ligament; the limb was strongly adducted, and drawn upward, and the head of the femur, rendered prominent by these means, was then taken off by cutting through the bone with a chain-saw just below the great trochanter. The outer surface of the femur, the trochanter minor, and the entire acetabulum, being carious, were removed in the same manner, leaving quite a large orifice in the pelvic wall. Only about eight ounces of blood were lost, and no vessels were tied. An hour later a tent of picked lint saturated with sweet oil was inserted into the wound, which was closed with six silk sutures, and a silicate-of-soda dressing was applied, leaving the projecting tent and the dependent angles of the incision uncovered so as to allow free drainage.

A quarter of a grain of morphia and half an ounce of brandy were given at once, and hourly doses of a tablespoonful of beef-tea with a teaspoonful of brandy were prescribed. In the afternoon her pulse varied from 130 to 140, her skin was moist and warm, and there was slight oozing of bloody serum from the wound. During the night a little hemorrhage occurred, but was promptly checked by the application of ice.

December 11.—Pulse 152; skin hot, but moist; child lay with the leg flexed on the thigh, and the thigh on the abdomen, seeming to be more comfortable in this position than in any other. There was still some serous oozing from the wound, at one extremity of which a slight blush had appeared. The buttock was painted with an ointment of oxide of zinc, and a fever mixture of sweet spirit of nitre and acetate of ammonia was ordered. In the evening a sixth of a grain of morphia was given.

December 12.—Pulse 148; temperature somewhat lower; the silicate-of-soda bandage was removed, and the wound found to be in a healthy condition. There was at this time considerable distention of the abdomen, with hypogastric pain and tenderness, but emptying the bladder gave immediate relief.

December 13.—Pulse 152, and irregular; suppuration had commenced, and the wound was not offensive, but the pus was drab-colored, thin, and scrofulous. She was still taking brandy, beef-tea, and milk in large quantities, and in addition a mixture containing quinia and the muriated tincture of iron.

December 15.—Pulse 140; wound suppurating freely, about one inch having united by first intention; the dressing was renewed for the first time since the operation, and in the evening the bowels were opened, also for the first time. She continued to take a sixth of a grain of morphia at night, and rested tolerably well.

December 18.—Pulse 128; skin warm and moist, and free passage from the bowels; general condition excellent. The pus escaping from the wound had now become thicker and more creamy, and was very abundant.

On December 23 she was able to extend her limb unaided and without pain, and from this time progressed steadily towards recovery. In twelve weeks she was walking about with the aid of crutches, and was enjoying excellent and almost vigorous health. The shortening which remained permanently was only two and a half inches.

Case II.—G. K., æt. 9, born in Maryland, was admitted to the Children's Asylum of the Philadelphia Hospital in March, 1871. His father died of phthisis pulmonalis, but his mother and several brothers and sisters were all living and healthy. Two years previously he had had a severe attack of malarial fever, followed by a gradually increasing stiffness of his joints, which finally obliged him to use crutches. At the time of his admission he was much emaciated, had no appetite, walked with great trouble, and was suffering from an otorrhœa; general appearance decidedly strumous. There was a profuse discharge from a sinus situated in the left hip-joint just below the great trochanter. He improved under treatment until October, when he had an attack of remittent fever; he was placed upon quinia, lacto-phosphate of lime, and cod-liver oil, and soon grew better.

On November 22, Dr. Maury brought him into his clinic in the presence of the attending surgeons and resident staff of the hospital, and a full class. He was then able to walk about the room with crutches; the heel of the left foot was drawn up, the toes alone touching the ground, and the knee was strongly adducted, almost in contact with the sound thigh. The shortening was two and a half inches. There were three sinuses about the joint, one lying over the trochanter major, still discharging and leading to dead bone, another over the sacrum, and a third, anterior and quite patulous, the probe passing in its entire length, in the direction of the acetabulum.

Operation.—The patient having been completely anæsthetized with chloroform, Dr. Maury made an S-shaped incision immediately over the joint and extending through two of the sinuses. The limb was forcibly adducted, the head of the femur freed from its attachments to the dorsum of the ilium, and removed by means of a chain-saw; a second piece was taken from the shaft of the bone, the whole portion excised measuring four inches and three-quarters. The endeavor was made to save as much periosteum as possible; but all except a small portion was so markedly diseased that it would have hindered rather than aided the reparative process. There was little or no hemorrhage, and no ligatures were required.

The wound was closed by five interrupted sutures, and dressed with adhesive strips; brandy and morphia were given as soon as the effects of the anæsthetic disappeared, and a febrifuge mixture was prescribed. He was allowed to assume any position he desired, no restraint whatever being put upon his movements.

November 26.—The limb was straightened and placed between sand-bags, the operation causing considerable pain. A solution of permanganate of potassa was ordered as a wash for the wound, which was looking healthy.

November 28.—No fever; very little pain; appetite good; bowels opened naturally. Suppuration was taking place, and there was a free discharge of laudable pus from the wound.

December 2.—The boy was anæsthetized, and extension was applied to the limb by means of adhesive strips. This was continued until the middle of January, when it was removed, and the leg was allowed to lie between sand-bags. Recovery was somewhat retarded by the formation of an abscess on the inner side of the thigh, but by the end of March the patient could flex and extend the limb without any difficulty. The general condition was much ameliorated after the operation, and remained excellent until he was able to walk around with crutches, and the cure was complete. The shortening in this case was about three inches.

(To be concluded.)

PHILADELPHIA HOSPITAL.

CLINICAL SERVICE OF DR. H. C. WOOD, JR.

Reported by JOHN M. KEATING, M.D., Resident Physician.

STHENIC PNEUMONIA—ITS TREATMENT.

A. D., æt. 39, was admitted to the hospital on Saturday, August 30. She stated that after exposure to wet she was seized four days previously with a severe pain under the left breast, which interfered much with breathing. This stitch continued for two or three days, during which time she was not confined to her bed, and was then felt in the same position on the right side. When admitted on Saturday her temperature was 103°: her pulse, full, strong, compressible, was beating 120; respirations 34. She complained much of the difficulty in breathing, and the pain in the right side. Over six ounces of blood were ordered to be taken by cut cups from the posterior lower portion of her lung, warm poultices to be placed over her whole chest and changed frequently, and the following mixture was given her, a dessertspoonful every two hours:

℞ Tinct. veratri viridis, ♏xx;
Liq. ammon. acetat., f℥ij;
Spts. etheris nitrosi, f℥j;
Liq. potass. citratis, f℥ij.

The veratrum viride was added to the mixture as it was not thought advisable to allow the nurses to administer it separately. When seen by Dr. Wood on Monday, there was dulness on the right side, with fine moist râles; on the left side there was blowing respiration, with fine crackling râles. The doctor stated that he brought her before the class to-day to speak more at length upon the treatment of this disease than upon its symptoms. "It must be understood that pneumonia does not always present the same phases; that whilst the pathologist is justified in calling all cases which offer certain anatomical changes pneumonia, to the therapeutist they are very diverse,—in a word, that pathological unity and therapeutic diversity often go hand in hand.

"The present case is apparently of that variety known as acute sthenic pneumonia: the ordinary pneumonia of young and robust subjects, characterized by its sudden onset after exposure, its sudden rise of temperature, which in a few hours may reach 103° or 104°, its headache, flushed face, strong, hard pulse, and hurried respiration. In it, after a time, sudden apparent convalescence occurs: a sudden fall of temperature, amounting may-be to five degrees, on the third, or sometimes on the ninth or twelfth, day. In the present case some of the elements for diagnosis are wanting, as the history is rather imperfect; none of it can be relied upon, and the patient was not seen until the fourth or fifth day. It is, therefore, difficult to say whether there will or will not be a distinct crisis; but I believe there will be. Sometimes, especially in patients broken down by poverty or dissipation, such as we see so many of in this house, there is a gradual defervescence, and the pneumonia becomes chronic. When the temperature falls, you have left the consolidated portions of the lung, and nature proceeds to relieve this gradually by converting the fibrin into soluble mucin, some of which is coughed up and the rest absorbed to allow the lung to resume its normal condition. In most instances of frank pneumonia there is a tendency to recover, and rest alone will often be all that is needed.

"In the majority of cases, then, of sthenic pneumonia, medical interference is not necessary for cure, although probably always if properly directed it will shorten the period of sickness. The question at once comes up, Can you arrest the disease? Personally I have no doubt that although pneumonia is a cyclical affection, it differs from the fevers in that if taken in the onset it may be sometimes stopped. I believe this because I have seen free bleeding do it. In many cases, however, venesection will fail of the desired end, and it may do fatal injury if it does not stop the disease, by leaving the patient unfit to bear the exhausting processes of recovery. Bleeding, therefore, for the purpose of arresting pneumonia is accompanied by too much risk.

"The old classic treatment was to bleed, give antimony, and blister. We can now replace the bleeding and antimony by veratrum viride or aconite, both of which reduce at once the force and frequency of the pulse and lower the temperature; but veratrum viride is safer and more controllable than aconite, and if by chance your patient should get an over-dose its ill effects are much more easily controlled by whisky, etc. One or two or three drops of the fluid extract every two or three hours until the pulse and temperature are impressed may be given, watching carefully as you give each dose. It is better, when you can do so, to give it separately. Use locally large poultices. Blisters increase fever when there is great arterial excitement, and do more harm by their constitutional action, than good by their local influence.

"Poultices, by relaxing the capillaries of the skin and by the irritation of their heat, cause an afflux of blood to the surface, and therefore act as mild counter-irritants. Moreover, I think they very probably, even in adults, influence the lung itself directly, just as they do a boil or inflamed external part. In children the chest-walls are so thin that it is exceedingly probable warm water will slowly find its way through them. Be this as it may, poultices are the best local application in the hot stage of pneumonia, and I habitually continue their use until the lung has well cleared up; although some prefer blisters after defervescence. In my practice the epispastics are reserved for those cases in which the consolidation tends to become chronic.

"After defervescence, annoying symptoms, such as cough, sleeplessness, etc., may be treated; but the chief indication is for support whilst the exhaustive process of clearing up is being carried out. At this time, then, withdraw the veratrum viride, and put your patient upon tonics and nutritious, easily-digested food. Of course, the best food you could give would be blood and raw meat; but in lieu of these, as they are objectionable to the patient, use *milk*. Lime-water is added, to make the clot spongy and soft. You can now treat slight symptoms: blister, if you wish; I never do it, except when the disease shows a tendency to become chronic. Such is the usual plan of treating pneumonia. But there are some cases which urgently demand immediate attention. The case before you, when she entered the ward, was gasping for breath. Consequently the blood-

paths were greatly narrowed by the obliteration of so many capillaries, and congestion of the sound portions resulted,—a congestion which was a mere physical result, but demanded immediate relief. There was consolidation of a large part of one lung, and the other was also affected, because there was too much blood for passage, and instant relief was demanded.

"When there is intense collateral congestion of the lung in pneumonia, reduce the volume of the blood in some way. The best way to do this is to bleed by the arm. In the present case it was thought proper to use cut cups, as the day she entered was the fourth day of the disease. When the pressure of the blood upon the vessels is increased, there is a tendency to leakage; and œdema of the lung complicates the existing trouble. Never *dry*-cup in pleurisy, as post-mortem examinations show that the contiguity of the pleura causes it to increase instead of diminishing the congestion.

"The future of the case before us is doubtful, and no certain prognosis can be made. Alcohol is demanded when there is failure on the part of the circulation. Alcohol is in large doses a febrifuge, but is, besides, the most powerful arterial and vital stimulant; and the great indication for its use in pneumonia is failure of vital power and of circulation. These seem now to exist in our case, and she shall be put on the use of alcohol."

[The woman was put upon the use of three fluid-ounces of whisky in the twenty-four hours, the veratrum viride withdrawn, and fifteen grains of quinine exhibited daily. The day after the clinic her temperature fell from 104° to 99½° F., and under supporting treatment the case has since progressed steadily towards convalescence.]

BELLEVUE HOSPITAL, NEW YORK.

NOTES OF TREATMENT.

INTERMITTENT FEVER.

SOME preparation containing quinine is usually given by all divisions in the treatment of this disease. The following, "Clark's powder," is given almost exclusively on the third division:

℞ Pulv. opii, gr. j;
Pulv. capsici, gr. iij;
Quin. sulph., gr. x. M.
S.—Dose.

This is given about four hours previous to the time the chill is expected. If admitted during a paroxysm, or shortly after one has ceased, the powder is given and repeated as above. This rarely fails to break up even a prolonged series of paroxysms, and in recent cases almost invariably succeeds. By others, quinine alone is administered. The patient is rapidly brought under its influence in the following way: If the chill be expected in the morning, quin. sulph. gr. x are given the night previous, and again in the morning, one dose four hours, another dose two hours, before the time the chill is expected to occur. In the majority of cases this is successful in warding off the chill. If, however, it occur, a hypodermic of morphia is sometimes administered; but oftener the above dose (gr. x) is repeated in the hot stage, and quinism produced and maintained until the disease yields. In addition to this, some preparation of iron is given, as tr. ferri chlorid. ♏ x–xxx t. i. d. The hypodermic administration of quinine is being used extensively here, usually with favorable results. The solution adopted is the following, suggested by Dr. F. D. Lente, of Cold Spring, New York:

℞ Quiniæ sulph., gr. 1;
Acid. sulph. dil., q. s.;
Aq. ebullient., ℥j.

Allow this to cool; then add—

Acid. carbolic. (cryst.), gr. iv. M.

Of this, ♏x–xxx or more may be injected subcutaneously without danger of producing abscesses, such as commonly arise by the use of the ethereal solution. Dr. Lente states that, although he has used it constantly in his practice, he has never seen an abscess caused by it; and a similar experience has attended its use here. This method is especially useful in cases of coma into whose causation malaria is suspected to enter; also in cases where it is necessary to bring the patient rapidly under the influence of the drug.

When quinine fails to arrest the paroxysms, arsenic is employed. A patient with malarial neuralgia of several weeks' duration had been treated by quinine in all the methods recommended, with no beneficial effect. Liq. potassæ arsenitis ♏viij t. i. d. put an end to the trouble in two days, the patient being discharged cured in ten days.

HYPERPYREXIA.

If malarial, this is treated by quin. sulph. gr. v, q. 4 h., and even in diseases in which no malarial element exists quinine is given. A temperature of about 104° F. is usually treated by quinine as above, and by tinct. aconit. rad. (Fleming's) ♏j, q. ½ h. for three or four doses, then q. 1 h. In sthenic inflammation this is the most common method, and is usually successful. If the temperature rise above 104° F., sponging the surface with water is employed, somewhat differently on different divisions; some preferring cold, others tepid water. Several cases of insolation were treated on one division as follows: by means of an ordinary garden-sprinkler, water as hot as could be conveniently borne was sprinkled over the body, an attendant on each side of the patient fanning the surface vigorously meanwhile. By this means the temperature in all cases rapidly fell, and did not show the same tendency to rise immediately that is observed when cold water is used. Ice-bags to the head, and cold-water injections into the rectum, were also used in some cases.

DIPHTHERIA OF WOUNDS.

Several cases have occurred during the past month in the lying-in-wards of diphtheria of wounds of the mucous membrane acquired during labor. The practice has been in almost every case to cauterize the surface with argent. nitrat. fus., and to apply cloths moistened with "black-wash" to the wounds. In one case cauterization was adopted, and no other local application made, the parts being syringed out thrice daily with sol. acid. carbolic. (gr. x–℥j). Resolution quickly followed in the last, and in all the others except one, which was complicated with puerperal fever. In all cases of fetid lochia, injections are employed either of the sol. acid. carbolic. or infus. chamomil.

W. H. Farrington, M.D.

TRANSLATIONS.

A CASE OF MELANÆMIA.

By Dr. S. Von Basch. Translated from *Wiener Med. Jahrbücher*

BY WILLIAM ASHBRIDGE, M.D.

THE patient whose case is here reported was a physician, 32 years of age, practising his profession in a very malarious region, who up to the year 1868 had always enjoyed good health, with the exception of attacks of muscular rheumatism of but little severity. In 1868 he had an attack of intermittent fever, which was speedily cut short with quinine. In the following

year the attack was repeated; in 1870 and 1871 the attacks become more frequent and of longer duration, but somewhat diminished in intensity. In the spring of 1872 the frequency of the attacks increased so much that the intervals between them were never longer than ten or twelve days. The types of the paroxysms were varied in character. The attacks in the beginning of May, 1872, were accompanied at one time with crural neuralgia, at another with pain in the muscles of the neck and back, and in both cases the pain ceased together with the intermittent fever on the administration of quinine.

Towards the end of July of this year, a new feature made its appearance. The patient began to feel a peculiar burning sensation in the fossa navicularis, which increased in intensity during urination, accompanied by a feeling as if the bladder was not completely emptied of its contents. A few days later, to the pain in the urethra was added pain over the symphysis; and about two weeks after this, intense pains in the joints, accompanied by a fever, set in, and lasted with about the same intensity for three days, when, under the use of cold water externally, and large doses of quinine, these two last-mentioned symptoms vanished. The symptoms before mentioned, however, continued, and a certain periodicity was observable in their recurrence: beginning in the course of the forenoon, they reached the maximum of their intensity about four or five o'clock P.M. The urine passed in the course of the day, with the exception of a slight cloudiness due to mucus, presented nothing abnormal; that, however, passed in the evening presented a milky cloudiness as it issued from the urethra, and upon standing there was precipitated from it a plentiful sediment of a dirty white color, which was soluble in acetic acid. This state of affairs continued, with occasional intermissions, due sometimes to large doses of quinine, at others of spontaneous origin. In the commencement of August the patient was sent to Marienbad; but the use of the waters was found to augment his sufferings, and the sediment in the urine continued as before. A short time after beginning the use of these waters, he came under the care of Dr. Von Basch, presenting at that time a marked cachectic appearance, and the spleen and liver were found by percussion to be enlarged to a marked extent.

The suspicion that the symptoms of trouble in the urinary organs might be due to the existence of a vesical calculus was entirely set at rest by a careful examination, so that, from the history of the case and the condition of the patient at this time, it appeared that the trouble was due to some disturbance of nutrition, having its origin in the repeated attacks of malarial fever to which he had been subjected. In his treatment of the case, Dr. Von Basch forbade the further use of the mineral waters, believing from what he had seen of their effects that they could only do injury, and, feeling convinced that the malarial influence was still active, ordered larger doses of quinine, with the expectation of continuing them for a considerable length of time. He advised at the same time the use of baths containing carbonic acid, since it has been found that the absorption of oxygen is favored by bathing in waters containing an irritant to the skin, hoping that a more active metamorphism of tissue would act favorably upon the malarial process. The result of this treatment was, on the whole, favorable; for the neuralgia and the sediment in the urine were absent more frequently than previously. The microscopic examination of the blood, which was commenced in the second week of treatment, supported the supposition as to the malarial origin of the trouble.

In the urine were found crystals of oxalate of lime, crystals of uric acid, and flakes containing a dark-brown pigment. From this Dr. Von Basch was induced to examine the blood of the patient, and in it he found similar hyaline flakes, and bodies resembling cells containing pigment. By this examination the existence of melanæmia was established, and its dependence upon malarial cachexia has been fully demonstrated by many observers. It is important to notice that in this case the urine contained no albumen, while in those cases already reported, in which this pigment in the urine was found, that excretion contained albumen.

In regard to the source whence the pigment came, none other than the blood can be given.

In support of this, the facts that the pigment was found in the recently discharged urine, and the entire resemblance between that found in the blood and urine, can be adduced. The well-known state of kidneys in patients with melanæmia renders it probable that the pigment passed from the blood into the urine within these organs, and not that it made its exit from the blood-vessels of the bladder. In conclusion, it is to be noticed that none of the other constituents of the blood were to be found in the urine, although the size of the pigment-flakes was from two to six times greater than that of the white blood-corpuscles. The condition of the patient gradually improved, until at last the symptoms had ceased, his health was good, and he was gaining in weight; but the pigment was still to be found in the blood and urine.

Upon his return to his home, however, a new attack of intermittent fever came on, and all the other symptoms detailed above returned.

MYOSITIS OSSIFICANS.

By Prof. Podrazki. Report of a case presented to the *K. K. Gesellschaft der Aerzte in Wien*, April 18, 1873. Translated

BY WM. ASHBRIDGE, M.D.

THE patient was a soldier, in whom as a result of excessive gymnastic exercise a development of bone had taken place in the brachialis anticus muscle of the right arm. This process had gone on with surprising rapidity, for at the end of eight days' exercise a swelling quite hard and tender could be discovered in the region of the muscle referred to. At its commencement the tumor was distinctly elastic, was undoubtedly situated in the belly of the brachialis anticus muscle, pretty firmly adherent to the humerus, and with the tendon of the biceps running over it. The arm was bent in a right angle at the elbow, and could neither be straightened by the efforts of the patient nor by passive motion. At first a strong needle could be thrust into the tumor, giving the sensation derived from a similar procedure with cartilage, and not causing the patient any pain. The tumor remained for a period of three weeks, when under the influence of chloroform an attempt was made to extend the arm. The contraction finally yielded to the efforts of the operation, giving rise to a tearing sound, supposed to be due to the separation of the tendon from the muscular tissue. The arm was placed upon a splint kept straight for some days, and from that time the motion in the elbow-joint was freer, but the muscle became constantly harder, and finally as hard as bone itself.

At the time the patient was shown, it was impossible, even with great force, to thrust a needle into the tumor, but the formation of bone could be distinctly recognized.

Two similar cases were presented by Von Pitha in 1864; the patients in both cases being soldiers, and the affection appearing in the same muscle, but in both cases upon both arms. A case entirely similar to the one here described is alluded to in the "Handbuch der Chirurgie" of Von Pitha and Billroth.

PHILADELPHIA
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The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

OUR HOSPITALS FOR THE INSANE.

AMONG the medical institutions of this community, none show signs of greater prosperity—meaning thereby an enlargement of their material resources—than our hospitals for the insane. Not only are they used nearly up to the limit of their capacity, but they have been recently enabled, through their own income or the special contributions of their friends, to meet the requirements of the time by extending their capacity, by providing a more liberal style of accommodations, and by increasing their means and appliances for the promotion of comfort and recreation.

First and foremost, the old Pennsylvania Hospital for the Insane, which, thirty years ago, obtained a new location beyond the Schuylkill, with ninety-seven patients, which number has now grown to four hundred and more, will begin the coming year with room for an additional thirty, in a new building, erected, like a similar one four or five years since, by means of the Fisher bequest. The one just finished is an admirable specimen of hospital architecture, providing for every requirement in the most satisfactory and pleasing manner. Though plain enough for the strictest economy, it is all in good taste, and not without some show of elegance; while the work and the materials are unexceptionably good. Thus, from time to time, this noble institution has been enlarging its means of usefulness, and every time presenting a fresh memorial of the enlightened benevolence of this community.

The old establishment at Frankford—the first in this country to exemplify, independent of other connections, the better management of the insane introduced by Tuke in England and Pinel in France—has lately yielded to the demands of the time for more and better accommodations, by erecting additional wings, by putting on another story in the Mansard style, and by various architectural changes that have greatly improved its appearance without and within. If beautiful grounds and fine rural surroundings fit an establishment in any measure for treating the disordered mind, this is singularly fortunate; and that these attractions, in connection with the above-mentioned improvements, are having their legitimate effect is well shown by the increasing number of patients,—larger the present season than ever before. In this wider field of usefulness, we doubt not, it will continue to maintain the reputation already earned as the successful pioneer in this benevolent work.

The private hospital of Dr. Given, near Kellyville, also illustrates the progressive spirit of the time, in a new Mansard roof, which gives it considerable additional room, and imparts a feature of elegance to its outward aspect. This institution has more patients at present than at any previous period; and if untiring devotion to his duties, intelligent and unceasing endeavor to promote the comfort of the unfortunates committed to his care, and constant personal supervision of his wards, should insure increasing numbers, the doctor well deserves success. Private asylums have provoked much unfriendly criticism, but there is, notwithstanding, a certain demand for them in our affluent communities, which *will* be supplied, and Dr. Given's is one of the kind best fitted to meet this imperative want. Its location is favorable, commanding a very extensive view, its grounds are beautifully planted, and, while exempt from vulgar intrusion, it is always open to the intelligent visitor to inspect and examine.

Let us mention, by the way, that many of the patients in these hospitals are from other States,—especially from the South and West. The fact furnishes a signal proof of that pre-eminence which Philadelphia has ever maintained in the attainment and diffusion of medical knowledge, and its results. People would not bring here their insane friends hundreds of miles from home, except upon the firm belief that they would receive, in a higher degree than they would anywhere else, the benefits resulting from the latest advancements in science, ren-

dered practical and enduring by private munificence.

We have another hospital, with twice as many patients as all these together. We refer to the Insane Department of the Philadelphia Almshouse, now containing over one thousand patients. Some three years ago the municipal authorities, at the instance of some benevolent gentlemen who were dismayed by its crowded condition, ordered the erection of two more buildings, one for each sex, capable of accommodating about seventy persons each; that is, providing for a two years' increase, as for the last six or seven years the admissions have exceeded the discharges at the rate of about seventy per year. The measure was prompted by the most benevolent motives; but it reminds us of Dame Partington's attempt to sweep back the Atlantic Ocean with a broom. At this moment there is more need of two additional buildings than there was three years ago. Now, as then, the patients are closely crowded together, with little or no employment, and at night many of them are put away in rooms six feet by ten at the rate of three in a room.

But then these patients are nothing but paupers —guilty of the double crime of poverty and insanity. All praise, then, to our City Fathers for crowding them into apartments too small for half the number. Millions upon millions must be furnished for the new public buildings. In the day of our city's exaltation, when Europe and America crowd its streets because a mighty nation celebrates its hundred years of freedom, it is well that, stone upon stone, marble upon marble, our municipal palace shall stand in cold but glittering magnificence.

Asking God's blessing, then, on our enterprise, let us for its furtherance strip our city hospital of every convenience; let every appliance for relief be withheld, every hope of cure banished, every mitigation of the deepest agony the human soul can suffer this side of eternity be sternly put away. All praise to those who have learned how to take care of our pauper insane at one dollar and eighty-five cents per week,—just enough to keep off the pangs of hunger with the coarsest possible of food; just enough to keep out the winter's cold with the coarsest possible of clothing. It is well—Dives should fare sumptuously, but let Lazarus with thankful heart kennel with the dogs in the stable.

Dr. Braxton Hicks, of London, has so nearly recovered from his severe illness, caused by an infectious wound, that he will return speedily to his ordinary duties.

RAPTORES ET OSCINES.

NOT long since we came across an educated citizen of no mean country,—China,—whose companion and purse-bearer had been murdered and robbed in New York, and who, penniless and without knowledge of our language, found his way to this city by hook or by crook, because, as he has since said, some "teachee man" had told him in China "nobody but good people in Philadelphia." Judging from the letter which we publish in another column, our city's reputation is better abroad than at home,—better in China than in Washington County. Yet we think this Munce affair may be deemed unfortunate rather than culpable, at least when judged by the political standard of our times. Our correspondent, if he be a voter, must know that, whatever the theory of our city government may be, in practice, like the class Aves, we are divided into two sets, those of prey and those to be preyed upon, —the rapacious birds and the finches,—the politicians and the people. The citizens know it, yet prefer, apparently, to be swindled, since they could alter matters if they chose. Under these circumstances it seems rather hard to call, as has been done, a poor coroner's driver a "ghoul" because he imitates his betters and robs the dead, or to revile the superintendent of burying-grounds because he pockets eight dollars extra from the tax-payers whenever he gets a chance. Why howl at the little rogues, when year after year the great rogues are re-elected,—yea, fawned upon? Shall not the tax-payer enjoy his inestimable privilege of being plundered? The ado, then, about these "small fry" has amused us exceedingly, and we have been only more amused by one thing, viz., the idea that any man should be so innocent as to think that our "learned District Attorney" will hurt any one of his following in this matter, unless, indeed, so much outside pressure be put upon him that he fears for himself.

So far as the medical authorities are concerned, we do not see that any blame attaches to them. When a body is brought by the properly constituted authorities to Dr. Hodge, with regular certificates, on what plea shall he refuse it, or why shall he ask whether it has been kept the forty-eight hours required by law? If he does ask, how is he to prevent men who have told a legal lie on paper from supporting it by an irresponsible verbal one?

So far as preventing similar occurrences in the future is concerned, the embalming and preserving of the bodies for a month or six weeks at the Morgue strikes us as the best proposal. As for "honest officials," the day for that has passed.

Whilst we are writing upon this subject, a few words in regard to the condition of the old University building sold to the United States government may not seem out of place. As is known to most of our readers, in the cellar of the building spoken of are a number of vaults or pits, nine, we believe, in which it has been customary for many decades to store the débris of dissection, filling a pit one year and closing it until, at the end of eight years, its turn comes again. The cleaning of these pits is a matter involving some thousands of dollars; and, as the government was informed of their presence before the sale and transfer of the property, no blame can be attached to the University trustees for not incurring the expense of emptying the vaults. It appears, however, that the medical faculty or its officers did not properly clean up the building; bones, and even partially dissected bodies, were left in various portions of it, instead of being placed in the pits, and gave rise to an odor which caused an official visit of the Board of Health and gave a pretext and inducement to burglarious reporters to break into the building at night, or more probably to imagine that they had so done, and to sicken the people with horrible sensational stories of what they had seen.

A great deal of censure is due those whose carelessness has given occasion for so much reproach; but at least as much reprobation is owing to such papers as the *Press*, which prostituted what influence they may have to excite public opinion against the medical schools. On the other hand, the thanks of the profession are due to the *Evening Bulletin*, the *Public Record*, and some other papers, for the sensible manner in which they have discussed the question.

CORRESPONDENCE.

LONDON LETTER.

[*From Our Own Correspondent.*]

The Medical Vacation—Doctors in the Highlands—The Meeting of the British Medical Association—The Members—The Cost—The Orations—Mr. Wood's Failure—Aspiration—Foreigners present—The Sources of Strength of the Association—Sir William Gull's Absence—A Thousand New Members—The *Times* and the Medical Journals.

AUGUST 18, 1873.

THE medical "season" here closes definitely at the end of July, and from that date until October, when the schools reopen and the work of the winter session recommences, we have a sort of interregnum. All London is out of town, and the medical men take their vacation. Some of our leading men are famous holiday-makers. I write to you to-day from a distant part of Scotland; and near me in the Highlands are Sir Henry Thompson, Dr. Priestley, Dr. Quain, Dr. Wilson Fox, Sir William Fergusson, and I know not how many more. Dr. Quain is a famous shot, and his London house is adorned with a forest of antlers, the trophies of his prowess in the deer-forests of Scotland; Sir Henry Thompson is almost as skilled with the brush and palette as with the lithotrite and the knife; and before sitting down to write you this retrospective letter of the last weeks of the season, I have had the pleasure of filling a basket with speckled trout, which I would more willingly send you than this MS. if it were likely to give you as much pleasure as the sport gives to city-pent men who can only break away at annual intervals from the round of professional work.

The London season closed, however, with a great meeting, half of business and half of pleasure, which deserves some record. The London meeting of the British Medical Association has been a very great success. Some of your professional brethren in Philadelphia, Dr. Wistar and Dr. Solis Cohen, were with us, and may perhaps give you some notes of their impressions. Dr. Gross was specially invited, but was unable to come. Nearly two thousand medical men assembled; and the meetings lasted throughout the week. The British Medical Association is made up of twenty-one local associations or branches, each having its own local meetings and local organization (on a nearly but not quite uniform plan), and each sending delegates to the Council, and to the smaller executive body or Committee of Council which governs the whole Association and represents it during the year. The secretary of each branch is *ex officio* a member of the Committee of Council, and so are the Past Presidents of the Association, who on quitting office become permanent Vice-Presidents of the Association. The other members of the Committee of Council are twenty gentlemen elected by open ballot at the General Council at each annual meeting, and of whom a proportion must retire annually. Thus the Committee of Council consists of about sixty members,—twenty-one secretaries of branches, elected by the branches, twenty elected members, elected at the annual meeting, and, by a recent resolution, the readers of addresses, etc., for the year. It is difficult to devise a more thoroughly representative body; and accordingly it has been found to work, on the whole, in a manner highly satisfactory to the profession. The Association takes from its members an annual subscription of a guinea: out of this it contrives to pay the executive expenses of the General Secretary, who receives an annual salary of £350 a year; his clerks and expenses; the expenses of standing committees, such as the Medical Reform Committee, Parliamentary Bills Committee, State Medicine Committee, and others; and, besides this, to furnish each member with a weekly copy of the *British Medical Journal* free by post. That journal is the organ and property of the Association. Eight years ago it was a small but respectable journal of about twenty pages: it is now a large quarto journal varying from forty to fifty-six pages. The numbers of the Association have risen consentaneously with the im-

provement in the journal. Seven years ago there were not more than two thousand members of the Association: there are now nearly six thousand members, and each year brings its contingent of several hundred new members,—the present year most of all, for more than eight hundred new members have joined already, and I am told by the Secretary, Mr. Fouke, that enough to make up a thousand are awaiting admission.

So great a progress has naturally excited a great deal of attention. Mr. Baker, the President of the Association, and Dr. Quain, the President of the Metropolitan Counties Branch, have during the last few weeks officially ascribed the opening of the new era of prosperity for the Association, and its steady continuance, to the improvement in the *British Medical Journal* with which it has been coincident and contemporaneous. The Association has lasted now forty-two years: it numbered about fifteen hundred members within a few years of its foundation, and there it stuck for twenty-five years. It held great meetings in London, in Edinburgh, in Birmingham, and elsewhere, and gathered to itself large accessions of members; but there was not in the ordinary activity of the Association enough to retain the members, and the return for the annual guinea subscription did not seem sufficient. Thus its fortunes fluctuated: the increase of one year was followed by a falling off in another year. For the last six years, however, the increase has been continuous and persistent; and this dates from the time that the size of the *Journal* was doubled and that it was placed under vigorous management which has increased its receipts from advertisements from £600 a year to nearly £3000 a year, which has been spent on the journal itself. The increase in the numbers and influence of the Association has naturally imparted also more confidence and activity to the policy of its managers. It has compelled the government to issue a Royal Sanitary Commission, on the reports of which has been based the Public Health Act. It obliged the minister in charge of that act to accept certain modifications of it. Under that act a medical man is appointed in every district of the country, at a good salary, charged with important duties and large powers as an officer of hygiene and preventive medicine. It has compelled Mr. Stansfeld to promise to include the existing medical officers under the laws for the relief of the poor by organization, and to remunerate them adequately for their trouble. It has called Mr. Cornwell, the Secretary of State for War, to account for provisions in a recent army warrant which are considered to be less favorable than they should be to army medical officers; and it has obtained from him concessions which now await the assent of the Treasury. Mr. Stansfeld, the President of the Local Government Board, last week addressed Mr. Ernest Hart, the chairman of the Parliamentary Bills Committee, with a letter requesting him to frame for the consideration of the government a scheme for the education and registration of midwives,—a subject which was recently recommended to his attention by a deputation of the Association.

Thus the Association had already a large place in public estimation when it commenced its annual meeting on the first week in August. The Lord Mayor of London gave some *éclat* to the meeting by offering an evening reception at the Mansion-House to the members and their ladies, who mustered to the extent of about four thousand. The authorities of the Royal College of Surgeons and of University College rivalled the municipality in the liberality of their entertainments. It is the custom of the Association that the annual meeting is held by the invitation of the local branch resident in the town in which the meeting takes place. The Metropolitan County Branch accordingly bore the expense of the arrangements for the meeting. These included the fitting up of the building in which it was held, King's College, the provision of a free luncheon each day for all comers, and grants to the excursions and pleasure-parties with which the week ended. Not more than about one thousand members were expected, and to defray the expenses £800 were raised among the metropolitan medical men. This, however, falls short of the expenditure, which has not been less than £1200; and a further subscription is being raised. Altogether, the expenses fall heavily upon some members; for the more prominent members of the Association entertained largely at their own houses, at dinner, during the meetings. Sir William Fergusson, Sir William Jenner, Dr. Quain, Mr. Curling, Dr. Russell Reynolds, Mr. William Adams, Sir James Paget, Dr. Burrows, Dr. Morell Mackenzie, Dr. Andrew Clark, Dr. Wilks, and others, received parties of fifty and sixty; Mr. Spencer Wells gave a garden party to one hundred and fifty guests. Sir William Gull, Mr. Prescott Hewitt, and Sir Henry Thompson were conspicuous by their absence. They were unwilling to sacrifice the first week of their holiday. In the case of Sir William Gull especially, who owes much to the Association, this carelessness and neglect of his provincial brethren, by whom he has been largely aided to rise to his present position, is the subject of much indignant comment, and the more so that it has not, as in some other cases, been relieved by the expression of regret and by compensatory liberality. The surgeon who had to leave town left fifty pounds as his contribution to the general fund: Sir William Gull left three.

These minor details of professional life will perhaps interest you more than the mere narrative of the public proceedings, which you will find fully recorded in the medical papers, and especially, of course, in the journal of the Association. No doubt also some of your own countrymen will record their independent impressions of what they saw on the surface. What I write will perhaps help your readers to understand the sources and character of the influence and activity of this Association, which has not at present, so far as I know, any rival among professional associations, in the extent, power, and completeness of its organization.

The late meeting was not remarkable for the excellence of the addresses. The only articles which were

noteworthy were those of Professor Parkes of Netley, on Medicine, and of Professor Sanderson, on Physiology. Both were reviews of progress which were everyway worthy of the occasion, and of which you may perhaps think it worth while to transfer parts to your columns. The address on Surgery, by Mr. Wood, is perhaps the weakest ever delivered before the Association. It is ill written, weakly conceived, and only half informed on such subjects as antisepticity in surgery, and the use of pneumatic aspiration, with which it deals. Oddly enough, it speaks of the pneumatic aspiration of strangulated hernia, a proceeding of quite a commonplace character and which is at least entirely innocuous, as one of unparalleled audacity, such that the writer could not nerve himself to its contemplation. A perusal of the chapter on aspiration of strangulated hernia in Dr. Dieulafoy's most interesting newly-published monograph ("A Treatise on Pneumatic Aspiration, a New Medico-Chirurgical Method of Treatment and Diagnosis in Hydatid Cysts and Abscess of the Liver, Pleurisy, Empyema, Hydarthrosis, Strangulated Hernia, etc." By G. Dieulafoy, M.D. Smith, Elder & Co., London) would certainly greatly modify that fear of Mr. Wood. Altogether, the address was below mediocrity, and was much to be regretted. There are, however, extenuating circumstances which must modify foreign criticism. Mr. Wood stands only in the third place among our London surgeons, and his name figured only accidentally on the list. It was intended and arranged that Mr. John Erichsen should give the address, and, failing him, Mr. Prescott Hewitt. Mr. Erichsen had accepted the task; but about a month before the time came for fulfilling it, his health gave way under the effects of a wound received in removing a cancerous tongue, which had brought on a state of chronic pyæmia. Mr. Prescott Hewitt was unable at short notice to accept the task, and by an odd sort of chance the next refusal fell to Mr. Wood, whose name had been put on the list accidentally and at the suggestion of a zealous friend willing to pay him what seemed at the time a nominal compliment. Mr. Wood had not much time to prepare his address, and it need not be judged harshly: we must only ask you not to take it as a specimen of what should be offered as a review of surgical progress by a representative metropolitan surgeon. Two other gentlemen would, it is stated, have gladly accepted the office, from whom we should have had a very different sort of oration,—Sir Henry Thompson and Mr. Spencer Wells.

The meeting had the advantage of the presence of some eminent foreigners; among them Professor Virchow and Baron Langenbeck, Professor Bardeleben, Oscar Liebreich, Binz of Bonn, Busch of Heidelberg, Lazarewitch of Kieff, Noël Gueneau de Mussy of Paris, Ollier and Chauveau of Lyons, Gosselin, Marly, Moreau, Spiegelburg, Cornil, Dieulafoy, and many others. Some eminent Americans were here from other cities than yours, including F. Barker and Bumstead of New York, and the delegates of the American Medical Association.

As to the uses of such a meeting, its first use is no doubt the great social use of union, greeting, affirmation of fraternity, of the common pursuit of large objects, of the acceptance of strict ethical principles, and the attachment to the pursuit of the sciences, and the attainment of the objects declared in the speeches and resolutions. The more important parts of the business are the reception of the addresses and reports, and the re-election of the committees which I have described, and then the sectional meetings. A great mass of scientific papers was read; but of these more may be said at another time. The speeches, the resolutions in favor of sanitary reform, of army medical reform, of poor-law medical reform, and the renewal of the organization of the Association for the year, attracted a very great amount of public attention. The *Times* gave every day four columns of its space to the reports; the Premier, Mr. Gladstone, attended the dinner, and paid public homage to the higher aims and more elevated functions of medical bodies to which this meeting testified; and, almost for the first time, the medical profession appeared as united in one powerful body for great objects of no selfish character, but indissolubly joined with good government and human progress. Hence this meeting has been a great success, not only for the Association, but for the profession at large. This is acknowledged by all the medical journals; but, inasmuch as the extension of the Association is necessarily coincident with a diminution in their circulation and influence, and every subscriber gained for the Association is one taken from the *Lancet* or the *Medical Times*, the warmth of their applause is a good deal tempered by financial considerations; and they are especially of opinion that it is preposterous for an association of medical men to own their own medical paper and to manage to carry on their association and publish their paper together for a total subscription of twenty-one shillings a year, while the subscription to the other papers alone is thirty shillings a year. Hence they advocate the diversion of the funds to any other purposes than those which have this year won a further accession of a thousand subscribers,—especially to a benevolent fund or to scientific grants. The advice has been annually tendered for a good many years; and the Association has thriven so well by not accepting it that it is a little surprising it should be so constantly repeated.

To the Editor of the Philadelphia Medical Times:

SIR,—I happened to be in the town of Washington, Pa., a few weeks ago, when the telegraph announced the finding of the body of Thomas Munce in the vats of the University of Pennsylvania, and I could not but heartily sympathize with the storm of excitement and indignation it aroused. Look at the facts. Thomas Munce was a well-known, highly respectable, elderly, bachelor farmer of Washington county; a man of means, worth from $75,000 to $100,000; of somewhat impaired intellect (result of an injury to the head sus-

tained some years ago), and erratic as to his times and ways. He left home unexpectedly, and was last seen on the 2d of July or early on the 3d at the Union depot, Pittsburgh. Later on the same day, whether as the result of accident, design, or of his own motion, his dead body is found in the Schuylkill and taken to the Morgue. *In less than forty-eight hours* from the time of his arrival in this city he is—minus watch, spectacles, and money—within the walls of the University of Pennsylvania, *injected*, and, with other victims, consigned to the vats to await the coming "lecture season" with its hungry "clubs of five." His spectacles fall a prey to one; his watch to another,—the driver of the coroner's wagon, who, after the excitement has somewhat died away, "spouts it" at the pawnbroker's shop, and thus a clue is given, which, followed up, ends with the body in the University vats and the driver under arrest. Well for Munce and his family that he journeyed eastward in the summer-time: a little later in the season, and, despite the friendly watch in the pawnbroker's shop, the "deep damnation of his taking off" would have remained a mystery till "the crack of doom." With the legal investigation now going on we have here nothing to do. 'Tis true, the coroner gets his eight dollars for burial (which our learned District Attorney endorses as proper and right, for the coroner's horse must be fed, whether the man be buried or not). 'Tis true, the superintendent of the city burial-grounds buries him,—*on paper*,—and gives his certificate to that effect. 'Tis true, the tax-payers pay the burial-fees and for the coffins,—the same old coffins which, a professional tells me, "have done this sad service and been sold over and over again to the city for many, many years." 'Tis true that the whole scandalous farce is a burning, blistering disgrace to our city; but we leave that to the law. Professionally, are our own skirts clean? A few years ago, when by the earnest efforts of our medical brethren (and especially the College of Physicians) the appropriation of unclaimed bodies for scientific purposes was legalized, and "body-snatching" became a thing of the ghostly past, society rejoiced, and the profession felt that a great advance had been made in the cause of science and humanity. But, sir, the indecent haste with which "a poor unfortunate" is swept out of sight, even for *scientific* purposes, shocks our moral sense. This corono-janito-medico combination savors too strongly of the "snap judgment" "sharp practice" order to suit our average citizen. The whole story, apologize as they may, is pitiful and disgusting and disgraceful to the last degree, and demands a radical correction. Let the bodies be *embalmed*, as Dr. Hodge calls it (injected with chloride of zinc—15 gr. to ℥j is the usual way; simple, cheap, and durable), by the coroner's physician, and kept in some convenient place a proper time for recognition. Then, with honest officials, we may hope that another such chapter in the history of our city will never be written, and elderly country gentlemen will not hesitate to visit us and accept the hospitalities of the City of Brotherly Love.

R.

REVIEWS AND BOOK NOTICES.

A PRACTICAL MANUAL OF THE DISEASES OF CHILDREN: WITH A FORMULARY. By ED. ELLIS, M.D., etc.

This book aspires to the name and uses of a manual. To produce a really good manual is certainly not easy. To be concise, accurate, and bright,—to tell the story of disease and remedy clearly and sharply, that the book may be hastily read yet quickly understood,—graphically and forcibly, that it may be long remembered,—these are some of the aims of a good manual. We have no wish to find fault, yet might suppose that cerebro-spinal meningitis had been known long enough to merit mention. We also were taught, and still believe, the typical duration of typhus fever to be fourteen, and of typhoid fever about twenty-one, days,—the author placing it at twenty-one and twenty-eight respectively. By a typographical error, p. 84, the well-merited claims of Dr. Sansom in connection with the sulphocarbolates are ignored, and credit is given to a Dr. Sansum, with whose name we are not familiar.

The student of physic, like the student of metaphysics, must paddle wearily through many a stagnant swamp of exploded error before he emerges into the swift-running stream of present truth. Why students are not told at once what is the accepted doctrine of the present, and allowed to grub into the past at their own option and inclination, we could never understand. Certainly by this method our overburdened course of study would be wonderfully relieved. This digression simply means that the manual under consideration is in some respects antiquated, and not always correct.

The author's chapter on typhoid fever states, as mentioned above, its duration at twenty-eight or thirty days. Especially in the case of children this seems a curious error; for in them so often is the first week completely overlooked that the fever has an apparent duration of only fourteen. In diet, "beef-tea, veal-tea, light pudding without currants, and milk" are recommended. "And the last shall be first." We believe that animal broths nearly always aggravate the diarrhœa, and in mild cases cause it; and that any one firmly withholding them during the fever, and depending on milk alone, will, after a few trials, be convinced. Especially would we warn against the—fortunately, in this country almost unknown—abomination, veal-tea.

On p. 93, "it must be remembered that children do not bear narcotics well." They bear them better than stupid medicators think, who, not knowing how much they require, over-dose them, and then make the above hackneyed remark. By narcotics we presume opium is meant. Surely no one will say that children are particularly susceptible to belladonna as a rule.

Page 92, "the abdomen may be covered with a moist, warm cloth well sprinkled with turpentine, or a bran poultice." The innocent and not too experienced student who should suppose the two synonymous would ere long discover his mistake: they are not equally calculated to remain upon the abdomen.

The mainstay and sheet-anchor also is noticeable. Witness the author's almost comical description (p. 115) of what to do with a child who has fits. Perhaps it has eaten something improper. What has it had? "A good purgative," he triumphantly exclaims, "will cure it. Calomel and sugar is the best, as it can be put on the back of the tongue and sucked down without difficulty." If all things which can be so placed and so disposed of are good purgatives, what a wide and popular range of drugs is opened to us! A little further we read, "for inward fits calomel will be required at once," conveying the impression to the above-mentioned unskilful student that without calomel "inward fits" are doomed to a rapid and early destruction.

With the exceptions noted, the manual suits us. It is pleasantly written, well printed, and ends with a formulary of drugs, from which we think the average American reader, if he try, can scarcely fail to gain some useful hints in prescribing.

SYPHILIS OF THE SKIN AND THE ADJACENT* MUCOUS MEMBRANES. By DR. MORIZ KAPOSI, Lecturer in the University of Vienna. With Chromo-lithographic plates executed by Dr. CARL HEITZMANN. In Three Parts. Part I., with Twenty Plates and Four Woodcuts. Vienna, 1873, William Braumüller.*

We have before us the above work, which has just appeared from the hands of its well-known authors, Drs. Kaposi and Heitzmann. Although only the first part of the treatise, it alone forms a valuable contribution to the study of syphilis. The volume, a large and handsomely executed specimen of the publisher's work, consists of concisely written chapters upon the soft and hard chancre and bubo. The text is elegantly illustrated by a large number of finely drawn and colored plates from the hands of Dr. Heitzmann. It is a volume of rare excellence and merit, portraying the skin-lesions of syphilis with unusual precision and truthfulness. We welcome its appearance as one of the most important publications of the year, and wish for it a wide-spread circulation.

HANDBOOK FOR MIDWIVES. By HENRY FLY SMITH.

We can speak only in praise of this little work. Though designed for educating a class of women as skilled midwives to take entire charge of easy cases and recognize difficulties in time to summon more intelligent assistance, it is superior to most works of the kind for students, especially for those intrusted with cases of midwifery, as often occurs very early in their studies. The exceedingly difficult task of explaining technicalities clearly to those without previous education on the subject is admirably done. We are astonished at the clearness and correctness of the book, which is small, beautifully printed, and well illustrated. There are no clap-trap pictures.

GLEANINGS FROM OUR EXCHANGES.

PSORIASIS—ITS ETIOLOGY, RELATION TO RHEUMATIC DISEASES, AND THE RATIONALE OF A COGNATE TREATMENT (by F. Le Roy Satterlee, M.D., Ph.D.).—The want of success attending the treatment of psoriasis by any of the received methods has given rise to a sense of impotency and dissatisfaction which has suggested a search for the cause of this disease. An identity or similarity of cause in psoriasis and certain rheumatic affections has occurred to Dr. Bence Jones and been hinted at by two or three other practitioners, but nothing has been presented showing any extended testing or following up of the suggestion. While studying this affection of the skin, both in private practice and also in the service of the New York Dispensary for Diseases of the Skin, it fell also to the lot of Dr. Satterlee to treat many rheumatic cases. The success of the latest treatment of rheumatism confirming the theory of its cause, and the observation of cases of psoriasis suggesting similar chemical actions, an inquiry of patients with the skin-affection developed almost universally the precedence or concomitance of rheumatic affections or at least a rheumatic diathesis in the individual or family, and the same characteristics in inheritance of tendency, persistency of continuance, or recurrence, in both diseases. Some two years ago he began to test the similarity of physical conditions present in the two diseases under consideration, and to treat psoriasis on the theory of an identity of the materies morbi. The results were so uniform and permanent that he feels warranted in presenting a representative case which had withstood the ordinary forms of treatment administered by the most competent men, and then the rationale and argument for the view advocated by himself.

P. H., aged 24; Irish; by occupation a porter; had suffered from psoriasis for eleven years. The disease spread rapidly until the whole body, the head and hands alone excepted, was covered; the spots, of the size of an English shilling, were always dry and scaly and were close together, the patient always worse in cold and damp weather. After five years the hands and face were also involved. The patient's father was killed, and nothing was known of his family history; the mother died of some disease of the bladder (probably calculus); several of his brothers and sisters had a similar eruption. The patient's habits had been good; he had always worked hard and led an active life; had suffered from rheumatism especially within later years. Seven years ago he was treated internally at Manchester, England, with no effect; in this country he had tried the homœopathic and hydropathic treatments, but with no effect except the washing off of the scales by excessive bathing; afterwards he received treatment by Fowler's solution, sapo viridis, alkaline baths, for four months, with but slight effect upon the affection, and he was discharged at the end of this time as incurable. At this time he suffered for two weeks from inflammatory rheumatism. After again trying homœopathic treatment for a short time, he was sent to the Dispensary, and came under the charge of Dr. Satterlee, by whom he was treated on the theory of the presence of an excess of uric acid requiring oxidation up to the point of urea. He was treated by alkalies internally, the diet being restricted to vegetables and fruits and vegetable acids, meat being forbidden, and no external treatment used except an occasional alkaline bath. In three weeks the result manifested itself, and the eruption gradually cleared off, until at the end of three months he was completely well, having gained several pounds in weight during the treatment.

There are two conditions which are the most likely to be the cause of a disturbance in the balance of the nutritive process essential to health. First, a given constituent of the food in too great an excess, and conditions retarding the normal changes of tissue, may prevent the appropriation of new material to construct healthy blood. Thus gout and rheumatism and allied affections are found in those of sedentary habits addicted to an over-indulgence in nitrogenous diet and generous wines. From these causes arises an excess of fibrin in the blood, and from this combined with conditions retarding the transformation of effete tissue there results an incomplete oxidation of the proteins of the body, intermediate compounds are formed, and these constitute the materies morbi of certain diseases, *e.g.*, rheumatism, etc. Second, the opposite state of affairs is found in the pyrexiæ, in which there is an excessive excretion of nitrogenous compounds from the body, and in the treatment of which such agents are employed as counteract oxidation. Another demonstration of these two opposite states Dr. Satterlee finds in the fact that in his observations he has never found rheumatism or psoriasis in the same subject with consumption.

If, then, these two diseases are looked upon as due to the same general cause or condition of system, the result of the metamorphosis of an excess of nitrogenous

* Die Syphilis der Haut und der angrenzenden Schleimhaüte. Von Dr. Moriz Kaposi, Docent an der Universität in Wien. Mit Taflen in Chromolithographie ausgeführt von Dr. Carl Heitzmann. In drei Lieferungen. I. Lieferung, mit 20 Taflen und 4 Holzschnitten. Wien, 1873, Wilhelm Braumüller.

substances, the treatment readily suggests itself. The diet must be restricted, so that the amount of nitrogenous matter taken into the body may be diminished, and such remedies must be administered as tend to promote oxidation, so that the excess of nitrogenous matter may be oxidized up to a point at which it becomes capable of being readily eliminated from the body. This is accomplished most readily by the alkaline salts; the vegetable acids also, which are converted into carbonates for this purpose, have the same action. The alkalies do not act by neutralizing the uric acid, as was at first supposed, but they prevent its formation in excess by oxidizing it up to urea. In this treatment of psoriasis, two or three weeks sometimes pass before any good effect is noticed; then the eruption begins to pale, the formation of scales is checked, and the patient finds himself in an improved general condition, feeling better and stronger than he has done since the appearance of the disease. The spots vanish by fading first at the centre, forming rings which break up, leaving pinkish stains which finally yield. With the entire disappearance of the eruption the patient finds his general health much improved: he has frequently gained weight during the treatment. The vegetable diet has been after a cure maintained to some extent, but not so stringently as during the treatment. If during the treatment a meat diet and the use of alcohol is permitted, the disease is found to retrograde in its progress towards cure. As psoriasis is essentially a chronic affection, a prolonged treatment, sometimes extending over six months, may be required to attain the desired result.—*New York Medical Journal.*

The Use of Digitalis in Maniacal Excitement (by W. Julius Mickle, M.D., Medical Superintendent Grove Hall Asylum, Bow).—The use of digitalis in various forms of insanity has been advocated by various writers, but there is still a great difference in opinion as to its efficacy, as to the appropriate method of administration, and as to the size of the dose, the same preparation being given by different physicians in doses ranging from ten minims up to half an ounce. In none of the cases treated by digitalis were other means of treatment neglected; the general treatment was the same adopted in other cases suffering from similar attacks; out-door exercise and full diet were freely allowed, and means employed to avoid irritation and to distract the mind from morbid objects of attention. In a majority of cases the use of the drug had but little reference to their cure, but was employed for the mitigation of distressing, exhausting, or dangerous symptoms of chronic and often incurable affections. The preparation usually was the tinct. digitalis (B. P.), and the average dose was thirty minims three times a day. Many of the cases thus treated were those of chronic mania in which there occurred exacerbations of excitement, in which the patients became agitated, noisy, and violent, enraged by delusions and vivid hallucinations.

The benefit derived from the digitalis, as well as the length of time during which the administration was continued, varied greatly in different cases. In the case of maniacs in whom the paroxysmal excitement recurred at short intervals, the administration was often prolonged; in those in whom the recurrence was at longer intervals, there was no reason for prolonging the use of the drug after the cessation of the paroxysm. In others of the cases subjected to this treatment, the excitement was more diffused and uniform, the exacerbations being very moderate in degree, thus offering a contrast to the patients of the first-mentioned class. The symptoms of excitement arising in the course of general paralysis were also treated with the tincture of digitalis in the same doses.

Some of the cases are excluded from the tabulated report, owing to incompleteness of the records of the cases; but there remains a list of forty-one patients to whom this treatment was applied on sixty-six separate occasions, of whose cases full records have been kept. Out of these forty-one patients twenty-five are recorded as cases of chronic mania, and the digitalis treatment was made use of forty-four times. These twenty-five cases can be subdivided into two classes: 1, those cases in which the excitement was paroxysmal, and 2, those in which the excitement was subcontinuous or continuous. In tabulating the results of this treatment in these two classes it is seen that there is a marked difference; those patients suffering from chronic mania with paroxysmal excitement having been benefited in a much more marked degree than those belonging to the other class. Various forms of maniacal excitement in general paralytics were also alleviated, and acute or subacute mania, and chronic mania with nearly continual excitement, were usually moderated thereby. In some cases in which digitalis had been used for a time and then omitted, it was noticed that the later course of the affection was milder, as if the period of quietude enforced by the drug had permitted a recuperation of the nervous power. The effect of the administration of digitalis upon the pulse was also carefully studied and recorded, and it was found that in those cases in which the drug had the effect of calming the excitement the high pulse attending the paroxysm was also brought down. In one case the pulse sank from one hundred and thirty-five to ninety on three successive days upon which the use of digitalis was pushed. In subcontinuous maniacal excitement the pulse is occasionally very high, usually moderately high, and not unfrequently low; but, whatever the frequency was, it was found that the usual tendency of digitalis was to reduce it; but still it was not found that the pulse was invariably retarded in every case.

Dr. Mickle considers from his observations that in the cases benefited by digitalis the maniacal symptoms were associated with disorder of the cerebral circulation, and that the drug exercised its beneficial action either by giving time to the heart's action, thus enabling it to overcome the tendency to local congestion, or by acting more directly on the peripheral arterioles, and thus immediately influencing the cerebral circulation. In a few cases in which no calmative influence was noticed until foxglove had been given till vomiting had been induced, the pulse was as a rule much diminished in frequency; but in some patients in whom during excitement the pulse rose very high, it was lowered but slightly even when emesis came on. In every case in which vomiting was caused, the excitement was diminished; but in some of the cases the effect was of but temporary duration. In most of the patients no gastric disturbance occurred; several even gained considerably in weight while under treatment. Comparatively small doses were found to exert an effect different from that of larger ones, and to produce or tend to a calmative and tonic influence in both cerebral and cardial agitation. Any unpleasant gastric symptom was interpreted as a sign that beneficial effect was being replaced by detrimental action, and that total or partial omission of the treatment was authorized. Any marked alteration of cardiac rhythm or sounds supervening while digitalis was being taken was felt to justify immediate cessation of its use; but cardiac contra-indications were extremely rare.—*Journal of Mental Sciences*, July, 1873.

Chloral in Pertussis (by P. Brynberg Porter, M.D.: *New York Med. Journal.*)—In a former paper, Dr. Porter stated that the administration of this drug had not failed in a single case of hooping-cough to produce some alleviation of the symptoms. Since the publication of his former article, he has used chloral

very extensively in this affection, and, though deeming it a most efficient remedy in a majority of cases, has found that it does not accomplish quite all that he anticipated from it. Possibly this may be due to a difference in the type of the epidemic, which according to his observation has been of much greater severity than that of last year. He has not lost a case while pursuing chloral treatment; and even those cases which seemed little affected by the drug may have been to some extent held in check by its administration.

The Solvent Action of the Papaya Juice on the Nitrogenous Articles of Food.—Assistant-Surgeon Gopal Chunder Roy has written an interesting paper on this subject in the *Calcutta Journal of Medicine*. The power of the papaya-tree and its juice to render meat tender is a popular belief in India. Dr. Roy's experiments confirm the truth of it. They were conducted at Netley under Dr. Parkes's notice, and are detailed at length in the paper referred to. The juice, or a solution of it, undoubtedly softens, digests, or dissolves meat, albumen, and gluten. Dr. Roy compares the action to that of a ferment, and suggests the administration of a few grains of the dried juice after meals in cases of indigestion depending on a deficient secretion of gastric juice.—*Indian Medical Gazette.*

MISCELLANY.

A Triumph of Art.—Boston stands pre-eminent in the production of exquisite and wonderful optical instruments. Mr. Tolles has just achieved the great result of producing a $\frac{1}{75}$ objective for microscopic uses, a glass of such difficult construction that we believe no optician has ever attempted it before. The power of this objective is such that a *single white blood-corpuscle covers the entire field of vision.* Mr. Tolles has produced two of the finest $\frac{1}{50}$ objectives ever constructed, one of which is in this city, the other is in the hands of a Western gentleman. The angular aperture of one is 120°; that of the other, and the last constructed, is 165°.

These objectives are of great excellence, and, in the opinion of competent microscopists, far surpass in defining power and clearness of field those of European make.—*Boston Journal of Chemistry.*

Pregnancy in the Aged.—Dr. Meynert has communicated to us the following case which has fallen under his own observation. A lady died at the age of eighty-five, having had four accouchements. The first took place at the age of forty, the second at forty-eight, the third at fifty-one, and the fourth at fifty-six. Five girls were born, of whom three are still living, the two twins being seventy-seven years old, and the youngest child seventy-one. These three persons, the two eldest of whom have been married and have several children, still enjoy the most excellent health.—*Lyon Médicale.*

A Monstrous Blunder.—A comical story comes from Paris, the authority being a correspondent of the *Pall-Mall Gazette.* The Shah of Persia, when in Paris, went to the Jardin des Plantes, and was very much pleased with what he saw there, and with the courtesy of the directors; so much so, indeed, that he made notes of the names of the men of science, with the view of "remembering" them, in the sense in which people who hope to get something ask to be "remembered." The other day his Majesty's compliments arrived, in the shape of "lions" and "suns," and other "orders," which count for a good deal in Persia. Unhappily, the Persian monarch somewhat dashed the pleasure of the "decorated" men of science by an awkward accident. He had noted down the names of MM. Geoffroy St.-Hilaire, Milne-Edwards, and other savants; but in company with them he had also written the names of some of the "extinct animals" whose relics are preserved in the museum; and, unluckily, the two sets of names got mixed up together. So it happened that when the men of science received Persian decorations, so also did the megatherium, the dinotherium, and other "fearful wild fowl" of the same character.

Contributions to a Scalp.—A young lady who had her scalp torn off by an accident in New Haven recently is reported to be doing finely. The *Journal and Courier* says, "The physicians have found thirteen persons willing to part with a small piece of their cuticle, and the medical gentlemen have placed the contributions on the head of the patient with gratifying results. As one after another volunteers to let the doctors clip off a piece of skin, the number of those willing to do likewise increases, and it looks as if the girl would have a scalp and a head of hair again. The younger physician attending first set the laudable example."

A recent homœopathic writer gives two hundred and eight symptoms as furnishing separate indications for treatment in cerebro-spinal meningitis; and for each of these symptoms he enumerates from one to nine appropriate remedies (*similima*).—*North-Western Medical and Surgical Journal.*

The Italian Senate has adopted the article of the new sanitary regulations which accords a pension to families of physicians who have fallen in the performance of their duties during the prevalence of epidemics.—*Lyon Médicale*, June 22, 1873.—*Clinic.*

Glycerole for Chapping of the Skin.—

℞ Oxide of zinc, gr. xx;
Tannic acid, gr. xv;
Glycerin, ʒix;
Tincture of benzoin, ʒss;
Camphor, gr. xv. M.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM SEPTEMBER 2, 1873, TO SEPTEMBER 8, 1873, INCLUSIVE.

Kimball, J. P., Assistant-Surgeon.—After completion of duty assigned him in Department S. O. 190, c. s., to report in person at these Headquarters for further orders. S. O. 189, Department of Dakota, August 25, 1873.

Yeomans, A. A., Assistant-Surgeon.—Ordered to Washington, D.C. S. O. 178, A.G.O., September 6, 1873.

PHILADELPHIA MEDICAL TIMES.

SATURDAY, SEPTEMBER 20, 1873.

ORIGINAL COMMUNICATIONS.

TWO CASES OF FISTULOUS TRACTS CLOSED BY THE USE OF CARBOLIC ACID.

BY H. G. LANDIS, M.D.,

Niles, O.

I GIVE the cases in full, to show the origin of the fistula in each, and that the reader may judge of the efficacy of the acid.

Case I.—Mc—, æt. 64; has had hydrocele for a number of years; has been tapped several times; is of a very nervous temperament, and has had financial misfortunes recently, which greatly depress him, and make him unfit for any severe operation. The hydrocele is on the right side, large, and increasing in size, and is now so annoying that he desires to be tapped. Desiring to avoid the use of chloroform, on which he insisted (greatly dreading the pain which the former tappings had given him), I tapped it in this manner:

January 25, 8 P.M.—The needle trocar of a hypodermic syringe was passed into the tumor, having attached to it two inches of rubber tubing. In the other end of the tubing a two-ounce syringe was introduced, and by slowly moving the piston was readily filled. It was then emptied and reapplied, and in this way a pint and a half of fluid was withdrawn in thirty-five minutes. A somewhat tedious process, but one absolutely devoid of pain and inconvenience to the patient, and to be recommended in cases where the patient is extremely nervous.

January 26.—Feeling none of the inconvenience that the usual method of operating had always given, he had coition before arising, and then engaged in hard labor. By 1 P.M. there was a slight scrotal swelling, and a little fever, which steadily but gradually increased until the next day, when the affected side of the scrotum was as hard as a board, and considerable pain was felt in the right testicle. As the inflammation had come, it was determined to make use of it for the purpose of obliterating the sac, and cloths of lead-water and laudanam were applied to keep it in due bounds; three cathartic pills were also given, as he had had no movement of the bowels since the day of operating.

January 28.—Inflammation stationary, but he is in a depressed condition, and expresses great fear of death. No passage. Repeated pills, and gave Seidlitz powder in the morning; ordered injection P.M., which was not given.

January 29.—Bowels tympanitic; pulse rapid; colicky pains. Gave two injections, after which there was a slight passage. The scrotal inflammation is a little less in degree, and after strapping it the pains were relieved. 8 P.M., pulse quick; paroxysms of abdominal pain. Gave chloral, gr. xl, and another injection, which produced a good evacuation.

January 30.—Better. Tightened straps. The inflammation has been rather more severe than necessary, owing to my attention being drawn away to his general condition. The tumor is now of the same size as before tapping.

January 31.—Complains of continual thirst, with dry tongue. This was relieved by a few doses of ol. terebinth. and acid. carbolic., but reappeared every few days for some time.

February 1.—Took off straps and applied a narrow roller bandage fastened to a belt around abdomen. By this contrivance the compression was made more effective, and the size of the tumor diminished somewhat. For the next week he had symptoms of the formation of pus. Pulse 90 A.M., 100 P.M. Slight hectic fever, and a tongue kept moist only by the means already alluded to. The depression of spirits was also continued.

February 18.—Having made no headway by compression, and finding the reaccumulation of fluid evident, tapped in the same manner as before, and drew off about a pint of fluid, which was slightly turbid. This was followed by much improvement in his general condition. The swelling was found to be mainly composed of the thickened walls of the scrotum (at least an inch in thickness), and the cord and testicle were also greatly enlarged by deposits of lymph.

On the 23d, the same procedure was attempted, but this time the contents of the sac were almost entirely pus and flakes of lymph. A small incision was made, through which the pus did not flow freely, and the walls were so thick that a sufficiently large opening would have necessitated an external wound of such size as to alarm the patient. A flexible catheter was therefore introduced, and the cavity pumped out. This was subsequently repeated several times, a pledget of muslin being packed in the wound *ad interim*. Tinct. iodine was applied externally, and subsequently an ointment of iodine and belladonna. Under this course the size of the sac and its pus-producing tendency were diminished very gradually, until in March there was only a fistulous tract extending anteriorly from the centre of the right side of the scrotum (the situation of the incision) to the opposite wall of the sac just above the testicle, and apparently the sac-walls had entirely coalesced except along this tract. Occasionally the external wound would heal up for a day or two, and pus would collect, and occasion considerable distress to the patient until the wound was reopened. This existed until the middle of April, when I resolved to syringe out the fistula with a one per cent. solution of carbolic acid. This was done by passing a small flexible catheter to the bottom, and gradually withdrawing it while the solution was forced in by the apparatus detailed above. This was done every other day for a week and a half. At the end of this time it had permanently closed. Three ounces of the solution was the whole amount used. In another month the parts were of normal size. As the fistulous tract had been maintained for over a month without change, I certainly think that the solution was curative in its action.

Case II.—J. S., æt. 21; after exposure was attacked by catarrhal inflammation of the right ear, which was stopped in two or three days by injections of a solution of sulphate of zinc. In a few days he went on a spree, and the otitis reappeared. This time the inflammation was not so tractable, and, becoming a little impatient, he yielded to his friends, and had a large blister applied behind the ear and extending down the neck several inches, by an "eclectic medicine man." Finding that he only gained an additional disease by this move, he applied to me again to heal the blister. When this had been half accomplished, the discharge from the ear diminishing at the same time, he again fell into the clutches of the eclectic, who applied caustic potassa to the neck, two inches below the mastoid process, and burnt out a hole an inch and a half in diameter, and a half-inch deep after the slough was removed. This was followed by diffuse inflammation of the cellular tissue, and burrowing abscesses following the fascia in several directions. In a few days the patient mustered up courage to return to first principles, and with much

bodily remorse, if not mental, requested me to finish the affair. By this time the ear was nearly well, and we had only the eclectic disease to treat. Several fistulous tracts radiated from the wound, of which the longest extended upwards for three and a half inches, passing behind the mastoid process and touching the periosteum of the occipital bone. This was in a week the only one remaining. Poultices, ointments, washes of divers sorts, and probings, were resorted to; as in the first case, it would close externally, pus would collect, and it would reopen. After a month's failure to diminish its size in any way, I resorted to the injection of a one per cent. solution of carbolic acid, passing a very small flexible catheter to the bottom, and attaching a syringe, as in the first case. Four applications were sufficient. In one week from the beginning of this treatment the neck was well.

These tracts will often form after inflammations of cellular tissue, and if the solution here recommended prove as generally successful in the future, it furnishes us with a much more prompt and less painful remedy than we have heretofore possessed.

August 30, 1873.

SUGGESTIONS FOR THE TREATMENT OF THE ALGID STAGE OF CHOLERA.

BY HARVEY L. BYRD, M.D.,

Professor of Diseases of Women and Children in the College of Physicians and Surgeons of Baltimore, Md.

IN view of the fact that cholera exists and has prevailed to a considerable extent in some of the cities and towns of the West and Southwest, and the world-wide knowledge of its great fatality under all the plans of treatment hitherto pursued, we are induced to offer some suggestions for the management of the disease in its most fatal stage.

In the first stage of cholera, experience has fully demonstrated the value of medical treatment when based upon correct principles, and recovery is, generally speaking, satisfactorily frequent. But in the algid stage and stage of collapse death takes place to a lamentable extent, and, so far as the knowledge and experience of the writer go, the prognosis in this stage, under any system of treatment hitherto pursued, is always unfavorable. Fortunately for Baltimore, no case of cholera has been seen within its limits during the present visitation to this country, and it is earnestly hoped that an opportunity may not occur for a practical test of the remedies soon to be mentioned for the treatment of the cold and collapsed stages of the disease, in this city. Though singly they are not new, they are brought to the attention of the profession now that they may be tried in the order indicated below, if deemed advisable or proper by the physicians engaged in the management of the disease where it prevails. In summing up and comparing his past experience and success and the success of the profession generally in the treatment of the stages of the disease alluded to above, the writer feels warranted in making such suggestions in regard to their management as may offer a plausible, not to say philosophical, hope of success. The blood is undoubtedly altered in a most essential manner in all cases of cholera, particularly when the disease has advanced beyond the first stage, and the capillaries, and nerves controlling their action, become involved in the copious escape of its more fluid constituents. The precise character of the change which the blood undergoes in a person exposed to the choleraic poison for a sufficient time to produce the disease we have at present no positive means of ascertaining, and speculations of our own in regard to it would be out of place in a brief paper like this. The altered condition of the blood, and the perverted or abnormal action of the capillaries and the filaments of nerves distributed to them and to the skin and mucous surfaces of the stomach and intestines, are phenomena that may be witnessed in every case of cholera on the occurrence of the algid or collapsed stage of the disease. The remedies proposed in this stage of cholera are transfusion of healthy human blood, or that of sheep or goats, the hypodermic injection of ergot or ergotine, alone or in conjunction with strychnia, and the electro-magnetic current. The action of these agents in the algid stage of cholera must prove beneficial, if we consider their physiological effects on the human organism as fully established. It is not proposed they should be used simultaneously, but probably in something after the following order: First, transfusion of healthy human or sheep's blood in sufficient quantity; then the hypodermic injection of ergotine for its specific action on the capillaries, and in a short time, if necessary to impart tone to the capillary nerve-filaments, the hypodermic use of strychnia; and, lastly, the application of the faradaic or electro-magnetic current to the nerves, as the par vagum, requiring assistance in the performance of their accustomed functions. With this agent—electricity—we have dried and imparted warmth to the preternaturally wet and cold skin, and excited the kidneys to action, in congestive conditions the result of malarial poisoning, and also in a case of cholera during collapses. Vide *Charleston Medical Journal and Review*, vol. viii. p. 628, 1854.

The foregoing suggestions are the result of careful thought and mature deliberation, and will certainly be practically tested should the algid stage of cholera again claim our professional attention. Our experience has shown that *the recumbent position should be rigidly enforced* as soon as the first stage of the disease is passed, and *the use of the bed-pan insisted upon for several days* after the grave symptoms have been subdued. Mechanical pressure of the abdomen and compression of the anus have also proven serviceable under our observation. This is easily effected by compresses of cloth over the intestines and anus, kept in place by a broad T-bandage. With this bandage pressure can be made, and the peristaltic movements of the intestines modified, if not controlled, even when it is absolutely necessary to allow the occasional escape of the contents of the over-distended lower bowels by the temporary removal of the anal compress. The foregoing, with the judicious use of ice internally and externally, and *positive inhibition* of *all* distilled alcoholic liquors, should always claim careful attention, whatever other remedies are used in the algid state or stage of collapse of cholera.

The writer is very positive he has seen *decided*

injury from the use of brandy and whisky in the algid stage of cholera, and cannot recall in his past experience a single instance in which *any* of the distilled preparations of alcohol afforded more than momentary benefit in this condition or stage of the disease.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROFESSOR PANCOAST.

Reported by FRANK WOODBURY, M.D.

TUBERCULOSIS OF THE ANKLE-JOINT.

THIS little girl has inherited disease, and illustrates the influence of a constitutional taint upon the physical development. The life-springs are poisoned at their source, the vital functions performed imperfectly and irregularly, nutrition vitiated, and the whole organism enfeebled. The little subject is thus rendered more susceptible to disease and less able to resist its ravages. Two years of age, her frame is emaciated, the skin is sallow and shows a tendency to eruption, and she has chronic conjunctivitis. She has not the light hair that frequently accompanies these symptoms, which, for convenience, are grouped under the general term of strumous; but this is the case in a large proportion of scrofulous subjects. In France, where scrofula abounds, there is comparatively little light hair; and the negro race, as we know, is quite subject to it. Experience has shown that of the two classes of strumous subjects the brunette is more liable to phthisis pulmonalis than is the blonde, who suffers more from bone- and joint-affections and diseases of the skin.

About four months ago the child's foot was bruised, and this injury has eventuated in chronic disease of the ankle-joint. The inflammation which was then inaugurated has acted as an exciting cause for the deposit of a crude, amorphous material in the soft parts about the bone, and finally in the bone-structure itself. The malleolus appears very much enlarged, and is rapidly progressing towards caries. The disease would end in destruction of the joint if it were not arrested by proper treatment. The patient's bowels are irregular; the breath is offensive, and the tongue furred, with pits on the tongue, showing the orifices of the ducts of the enlarged mucous follicles with the mucus overflowing around them,—a condition which probably indicates that of the mucous membrane throughout the alimentary tract, by which the lacteals are clogged, the digestion is impaired, and the absorption of chyle interfered with. This accumulated secretion in the bowels forms what was designated by the older writers as saburra.

To give the patient the best chance of recovery, we will endeavor to correct the secretions, improve the digestion and appetite, and bring the general health nearer to the normal standard. Until the condition of the alimentary tract is changed, but little benefit can be expected from treatment. We will therefore give, as an alterative cathartic,—

℞ Hydrarg. chlor. mitis, gr. jss;
Sodæ bicarb.,
Pulv. rhei,
Pulv. myristicæ, āā gr. ss.

This is to be given every third night.

As a tonic, she may have the disulphate of quinia:

℞ Quiniæ sulph., gr. xxx;
Acid. sulph. aromat., ℥j;
Tinct. cardamom. comp., ℥j;
Syr. acaciæ, ℥iij. M.

S.—A teaspoonful, in a little water, before meals.

Her diet must be carefully regulated, interdicting pastry, salt meat, uncooked vegetables, candies and all other sweet things, and all food which is digested with difficulty. She may have plenty of eggs, milk, rare beef, or chicken, with a little ale or claret if she likes it. She might be given some weak milk-punch, even, or egg-nog, with positive advantage. As she is anæmic, she may also have a tablet of the pyrophosphate of iron (gr. ij, made up with gum and sugar) after each meal; this chalybeate I prefer, and always use, in these cases, as it is less apt than any other form to blacken the discharges from the bowels and render them irritating.

There is fluid around the joint, and the bone is quite soft. To relieve the tension, and let the fluid escape from its bed, I will puncture in several places, with a delicate tenotome, the different layers of skin, fascia, and periosteum, which are arranged like the alternate elements of a voltaic pile. The bone is so soft that the knife enters it like a piece of soft wood, and stands vibrating, as you see, as if it were stuck into a cedar shingle. Having made ten or fifteen of these little punctures and allowed them to bleed sufficiently, the joint will be wrapped in dilute Goulard's extract and laudanum, and, as far as is practicable, kept at rest in an elevated position. These punctures give the fluids exit, relieve the strangulation, deplete the congested vessels, and do an immense amount of good. Of course, in introducing the knife care must be taken to avoid injuring the larger vessels or nerves. With this precaution I have never seen punctures do harm, and they are a thousand times better than leeching.

In addition to this treatment I will order a wire-splint for the foot and leg, open on one side for the dressing, so as to keep the joint perfectly at rest.

[The case was presented at several successive clinics, and soon was progressing most satisfactorily towards a cure.]

CHEILOPLASTY.

This young man, 20 years of age, is brought by Dr. W. Hartzell from Montgomery County, of this State. Seven years ago he was accidentally ptyalized during convalescence from typhoid fever. This led to caries of the right half of the inframaxillary bone, causing a loss of all the molar teeth of that side of the jaw, and sloughing of the lower lip and part of the cheek. This left an open ulcer, extending under the chin, the borders of which cicatrized very slowly. This loss of substance allows the saliva to constantly dribble on his clothes, obliging him to wear a bandage around the neck and chin. Speech is interfered with, eating is difficult, and he feels incapacitated for business.

The patient is in good health and solicits relief from this troublesome affection. The lower lip on the right side is entirely gone, from just outside the commissure to beyond the median line, and as far down as the junction with the gum.

Cheiloplasty is the name given to the operation for restoring an entire lip or any portion of it, which has been destroyed by accident, the ravages of malignant disease, or other cause. There are many ways of performing a cheiloplastic operation, and they must be selected to meet the peculiar exigencies of the case. The one I shall do to-day is the best one, in my opinion, to remedy a deformity such as we have before us.

In performing this operation it is better not to use an anæsthetic, if possible, as it is done more conveniently with the patient seated in a chair before you, and the risk of vomiting is avoided, which is annoying during the operation. Having the clothing of the patient covered, and his arms held by an assistant, I take a bistoury and refresh the edges of the cicatricial margin throughout its whole length down to the chin, saving as much of the vermilion mucous border of the old lip

as possible. Two incisions, about three-quarters of an inch apart, are then made on each side outward from the chin, but nearly parallel with the jaw-bone. The upper one starts from the commissure, and involves the whole thickness of the cheek; the second goes down to the jaw-bone. The flaps are then freely detached from the bone with the knife, squared at their ends, and brought together in the middle line by the interrupted and hare-lip sutures. The small part of the lip which was uninjured is thus made to form a part of the flap. The flaps must come together without tension, for fear the stitches will pull out. In order to avoid this they must be loosened well back, when they will readily stretch and rest without tension. After tying the spouting vessels, the capillary oozing should be stopped, not by a styptic that destroys tissue, like Monsel's solution or any of the mineral acids, which would interfere with union, but by the soap styptic, which is quite sufficient and rather facilitates union by first intention.

To support the parts and keep them in contact, we place adhesive strips between the sutures, and over all a lint compress spread with benzoated oxide of zinc ointment. He must keep the lower jaw at rest, and feed from the spout of a teapot.

(One week later.)—The union is now complete, and the pins and sutures may be removed, but the parts should still be supported by strips, and the patient must avoid laughing or talking, for the cicatrix is recent and might yet give way. We will permit the flaps to attach themselves to the gum wherever they will, in order to gain as much nourishment as possible. When the cure is completed we can give him ether and divide the attachments to the lower jaw, so as to render the lip movable.

(Twenty-fifth day.)—The patient presents himself with the lip completely restored, and wishes to have it freed from the gum and jaw. Having done this, we insert an oiled compress between the raw surfaces, to prevent their reunion. The muscles about the commissures, part of which went into the structure of the new lip, will gradually pull the mouth into proper shape.

PHILADELPHIA HOSPITAL.

SERVICE OF DR. F. F. MAURY.

Reported by Dr. J. Wm. White, Resident Physician.

FOUR CASES OF EXCISION OF THE HIP-JOINT.

(Concluded from page 789.)

CASE III.—McK., æt. 23, a druggist, and a native of Philadelphia, was admitted to the Philadelphia Hospital on April 16, 1872, with extensive disease of the right hip-joint, in the neighborhood of which there were eight sinuses. One, opening at the femoro-scrotal junction, was directed upward, backward, and outward beneath the femoral vessels, and extended to the iliac bone; another was about four inches below the great trochanter. Three, leading towards the acetabulum, were around the anterior superior spinous process of the ilium, and three more were irregularly arranged over the trochanteric prominence.

From each of them a scanty but offensive discharge constantly escaped. On manipulation of the limb, which was withered and shrunken, there was rocking of the pelvis, but no movement of the articulation, the joint being firmly anchylosed. Complete talipes equinus existed, with shortening to the extent of four and a half inches. The man was pale, thin, and anæmic, although he had undergone a preparatory course of tonic treatment.

Operation.—On April 17, Dr. Maury brought him into the clinic before an unusually large class, and, while chloroform was being administered, explained the circumstances of the case. He then made an incision six inches in length over the great trochanter, carrying it down to the bone and obliterating three of the sinuses. The head of the femur was found separated from its neck and firmly lodged by bony anchylosis in the acetabular cavity, and the femur itself was dislocated backward on to the ilium and strongly united to that bone. There were extensive caries and necrosis of the neck, the trochanter major, and portions of the ilium.

The femur was with great difficulty separated from its attachments, the periosteum, where present, stripped from the bone, the latter sawn in two just below the trochanter, and the diseased structures removed.

The loss of blood was very slight, no ligatures or hæmostatics being required. The cut edges were approximated by four interrupted sutures with adhesive plaster, and oakum was placed over the wound.

Throughout the operation the chloroform was well borne, the pulse keeping strong and regular, and there were no indications of shock or of marked depression. Whisky and morphia were given on recovery from the anæsthetic. For the first twenty-four hours the patient was permitted to assume any position which seemed desirable to him, but was afterwards instructed to lie on his back, with the limb as nearly extended as possible.

April 18.—Pulse 100; slight nausea, relieved by ice and paregoric; no appetite; some pain in the hip and knee.

April 19.—Condition improving; the patient was somewhat annoyed by twitching of the muscles of the leg and thigh, but found relief from the careful application of a bandage. Wound looked healthy, and was dressed with an ointment of the oxide of zinc, adhesive plaster, and oakum,—the latter changed twice daily; urine somewhat scanty, and high-colored, with a copious lateritious deposit. Quinia and muriated tincture of iron were given, and were ordered to be continued.

April 20.—Pulse 100, strong and regular; his appetite was increasing, and the discharge from the wound—heretofore very profuse and sero-sanguinolent in character—was less abundant and more purulent.

April 24.—A free evacuation of the bowels was produced by an enema of warm water. The stitches were removed, and it was found that union had taken place to the extent of one and a half inches at either extremity of the wound, which was granulating in the centre, but remained sufficiently patulous to permit the ready escape of pus. The odor was slightly fetid; but this was corrected by the addition of a little carbolic acid to the oakum. A spasmodic retention of urine necessitated catheterization.

The patient was taking beef-tea, eggs, milk, and the most nourishing diet, with six bottles of porter daily.

April 25.—A small bed-sore appeared over the sacrum, and was dusted with powdered bismuth.

April 28.—Extension was applied to the limb by means of adhesive strips, one brick being used. The discharge from the incision and the sinuses was tenacious, grayish, and free from offensive odor; the wound was granulating nicely, the appetite improving, and the general condition excellent.

May 20.—Since the last date the patient had kept on his back with extension applied; the wound had cicatrized over the larger portion of its extent, but the sinuses remained open, with an increased amount of discharge from those on the inner aspect of the thigh, probably due to the partial closure of the incision.

There was occasional pain in the hip, but none about the knee; a small superficial abscess had formed along the femoro-scrotal junction, and had burst, leaving a fistulous opening. The knee and foot showed, as usual,

a tendency to become inverted, to correct which a small sand-bag was placed along the outer side of the leg and the knee fastened to it by adhesive strips.

Convalescence in this case was somewhat protracted, but in four months the patient was able to walk with slight difficulty. His health was improved after the operation, but he died some time after, of Bright's disease of the kidneys.

Case IV.—R. T., æt. 8, was admitted to the Children's Asylum, August 26, 1872. He had fallen from a wagon some months previously, severely injuring his right hip. Anchylosis had resulted, with the formation of several sinuses in the vicinity of the joint, which became entirely useless. In November, 1872, Dr. Maury operated for his relief, removing the head and neck of the femur, and a portion of the shaft.

He bore the operation well, but his recovery was slow and tedious. An extensive inguinal abscess formed, burst, and is still discharging, together with several sinuses.

The boy is, however, greatly improved in general health, has no pain, and by the aid of crutches walks without any difficulty.

RAILROAD FRACTURES—AMPUTATION.

Operated upon and reported by

DR. JULIO J. LAMADRID,

Middletown, New York.

CASE I.—Charles L., æt. 30, and a brakeman on the Erie Railroad, of strong, healthy constitution, was run over on the 13th of March, 1872. The wheels had passed sideways along and over the right leg, lacerating its tissues, and producing a comminuted fracture of all the bones of the leg. On examination I found that amputation was required. I removed the limb on its upper third. We were unable to apply the tourniquet, for want of room, therefore had to rely upon manual compression of the femoral artery. The hemorrhage was trifling.

Thirty-six hours after the operation the patient had rallied from the shock. Five weeks afterwards the wound had almost healed up, when the patient was taken to St. Vincent Hospital, Jersey City, and returned two weeks after, well and sound.

Case II.—John W., æt. 24, German, and a brewer by trade, was run over by the cars on the 18th of June, 1872, while intoxicated. On examination I found that the wheels had passed over his legs, producing a compound comminuted fracture, and removed both legs successfully by the common double-flap method.

The patient recovered nicely from the shock and operation, and one of his legs healed up by first intention, and the other by granulation. He was able to go out on crutches six weeks after the operation, and in three weeks more was entirely well.

EFFECT OF CARBOLIC ACID ON THE URINE.—Mr. W. A. Patchett reports a number of observations upon a peculiar change of color in the urine, produced by the external application of carbolic acid to a raw surface. A blackish or dark olive-green discoloration occurs in from four to forty-eight hours, and the urine resembles an infusion of tea or digitalis to which a little iron has been added. The discoloration does not appear with any regularity or constancy, and may follow the internal use of carbolic acid, but unless poisonous doses have been given the color is not so deep as that produced by the external application of the acid.—*London Lancet*, August 23, 1873.

TRANSLATIONS.

CARBONIC ACID IN THE URINE IN FEVER.

By DR. C. ANTON ERRALD. Translated from *Archiv für Anatomie, Physiologie, und Wissenschaftliche Medicin*

BY WM. ASHBRIDGE, M.D.

OF late the amount of carbonic acid excreted under normal conditions by patients with fever has been regarded as an important element in the metamorphosis of tissue, and has been determined both by direct and indirect methods. The results obtained by investigators provided with better means of research which give an increase in the amount of carbonic acid exhaled from a patient with fever differ from those of the older observers. A similar result is not given by observations upon animals in a febrile state (*i.e.*, when the temperature is artificially elevated), in whom there is either no increase in the production of the gas in question, or if there is any increase it is but slight and irregular. The importance of the question renders it desirable to support the results already obtained, and to strengthen them by a new series of observations upon febrile patients, conducted by new methods.

Apparently the difference in the results in the experiments on men and on animals can be accounted for by individual characteristics, for it is not possible for the experimenter to reproduce the febrile state so accurately in animals that he can apply his results exactly to cases of fever in human patients. Heretofore, in searching for carbonic acid in the excretions the expired air only has been examined, and the gas contained in the other secretion has been overlooked.

The urine in these experiments was drawn into vessels carefully cleaned and from which the air had been exhausted by the air-pump, and its quantity was ascertained by weight and noted. The quantity of oxygen and of carbolic oxide contained in urine is so small that it was overlooked in the estimates of the amount of carbonic acid present. Numerous observations were made, and the fact most clearly established that for the same individual, *cæteris paribus*, the amount of carbonic acid in the urine in fever is greater than in health, and, further, that the evacuation of carbonic acid in its increase and diminution keeps pace with that of the urea. This parallelism is to be expected, since, although part of the carbonic acid comes from oxidation of the albuminates, another part of it has its origin in the consumption of hydrocarbons and fats, and this latter source is the one which is the more important in health. These results must be looked upon as the expression of the increased metamorphosis of tissue in fever, and, since it has been shown that the carbonic acid has its origin in the tissues and not in the blood, it follows that the increased carbonic acid observed in fever likewise has its source not in the blood, but in the tissues.

DROPSY OF THE FOURTH VENTRICLE.

Translated from *Le Progrès Médicale*, August 2,

BY WM. ASHBRIDGE, M.D.

AT the meeting of the Société de Biologie, July 26, 1873, two cases of dropsy of the fourth ventricle were reported; in both cases death occurred suddenly, and autopsies were made. The first case was that of a woman who, falling suddenly without consciousness, was taken to the hospital, where, after about an hour, during which she had convulsions, she died. At the autopsy, dropsy of the fourth ventricle was found, and,

in addition, hyperæmia of the pia mater, and a dilatation of the fourth ventricle, the walls of which were pushed apart by a considerable quantity of fluid. The ependyma covering the walls was much thickened. The lateral ventricles were also dilated, but in a much less degree.

In the second case the patient was a young girl, 17 years of age, who entered the hospital with the signs of meningitis, but as the symptoms ameliorated she was able to leave. The same symptoms appeared for the second time and again vanished. But on the 10th of July, a short time after she had been observed quietly talking with her companions, she was found dead.

At the autopsy there was found a moderate hyperæmia of the meninges, dilatation and dropsy of the fourth ventricle, with thickening of the lining membrane, and more than the usual amount of fluid was found in the lateral ventricles. In both cases were found the same lesions, and in both there was rapid death, which was due, probably, to compression, as there was a very rapid pulse and rapid respiration, but no elevation of the temperature. The dropsy was probably promoted by the hyperæmia of the meninges, which was established by the autopsies.

THE CENTRE OF THE NERVES OF ERECTION.

By Prof. W. Goltz. Translated from *Archiv für die Gesammte Physiologie*

BY WM. ASHBRIDGE, M.D.

PROFESSOR GOLTZ was induced, by the statement of Eckhard that the nervi erigentes could be followed within the spinal marrow, and even up to the pons and into the cerebrum, to publish the results of investigations of the subject made by himself upon dogs, and which have led him to a different conclusion. He is convinced that the nearest centre from which the nerves in question have their origin is the spinal marrow of the loins. After section of the posterior segment of the cord in the thoracic region, he was enabled to cause erection by reflex influence.

He found also that the occurrence of these reflex phenomena can be checked by irritation of nerves of sensibility.

Further than this, he observed characteristic rhythmical contractions of the sphincter ani in animals whose spinal cords had been cut, which could also be restrained by irritation of certain parts. He concludes that the spinal marrow of the lumbar region contains centres of influence of far more diversified character than has previously been supposed.

CHOLERA AND INTERMITTENT FEVER.

By Dr. Joseph Hilf. Translated from the *Wiener Medicin. Presse*

BY WM. ASHBRIDGE, M.D.

DR. HILF thinks that any one who has had an opportunity of observing cholera in malarial districts where malarial fevers are endemic must have noticed a certain resemblance between these two diseases : both having a hot and a cold stage, being attended by an almost insatiable thirst, and, finally, the occurrence of sweating; and in the so-called pernicious fever the stages of cramps and vomiting are constant, as in cholera. When the causes of the two diseases are compared, a similarity is again noticed, the malarial fever being due to the exhalation of swamps, while he regards the hypothesis that cholera has its origin in the miasma of the delta of the Ganges as the most probable one. He had an opportunity in the year 1855, while stationed in a malarial region of Hungary, of observing cases of cholera during the epidemic of that year, and he was induced by the resemblance alluded to above to adopt the received treatment in malarial fever—*i.e.*, by quinia—in cases of cholera.

His wife, at that time in the sixth month of pregnancy, being attacked with the prevailing epidemic, and all other treatment having failed, he, in the hope of sustaining strength, administered two grains of quinine every hour, and, to his great delight, after the exhibition of the third dose he saw an increase in the temperature of the body and in the number of the beats of the pulse. During the six weeks that the epidemic lasted, out of one hundred and twelve cases treated by tannin and opium, and, when these failed, by quinine, he lost but thirteen cases.

During last year two cases were treated in Pest with the same drug, with favorable results in both cases; and during the present summer numerous cases have been treated both by Dr. Hilf personally, and by others to whom he has recommended the use of quinine, and the results have been uniformly favorable.

THE COMPOSITION OF THE MILK OF WOMAN.

By Dr. Th. Brunner. Translated from *Archiv für die Gesammte Physiologie*

BY WM. ASHBRIDGE, M.D.

THE object with which these investigations were commenced was to ascertain, if possible, whether differences could be observed between the secretions of the two breasts of the same individual, and, if possible, to solve the question whether the constituents of the milk are prepared by the gland itself, or only separated by it from the blood. The women upon whom the observations were made were, with a few exceptions, from the Foundling Asylum in Prague.

The most extreme care was used in conducting the experiments, and some new methods were employed in conducting the quantitative analysis, by which Dr. Brunner thinks he has attained a degree of accuracy not before reached. The results given by him agree with those obtained by previous investigations more nearly as regards the proportionate quantity of sugar than the other constituents. Part of this discrepancy he thinks can be accounted for by the different methods employed, and part is due also to the fact that the women used for his investigations had borne their children some months before, and it appears that the milk becomes poorer as lactation is prolonged with regard to albumen and fat, while the amount of sugar, water, and soluble salts contained remains nearly unchanged. Some of his observations were conducted with a view to comparing the secretion of the two breasts. His results show that there can be a difference in the composition of the milk of the two breasts, but his observations were not numerous enough to justify the drawing of any definite conclusion on the subject.

A Mummy Monster.—Dr. Chas. S. Swazey, of New Bedford, has kindly allowed me to bring some photographs of Peruvian relics, and among them is one of a human dicephalus, closely resembling our specimen; but as it is in a sitting posture and shown from in front, the existence of median limbs is merely to be inferred. It seems that monsters did occur among the ancient Peruvians, and that they were not consigned to scientific investigation, but duly mummified.—*Prof. Burt G. Wilder, in Proc. of the Am. Assoc. for the Adv. of Science.—N. Y. Tribune.*

PHILADELPHIA

MEDICAL TIMES.

A WEEKLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

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EDITORIAL.

THE ADMINISTRATION OF CHARITIES.

IN our issue of August 30 is a letter from Dr. Levis, of this city, called forth by an editorial which appeared in our columns in regard to the Wills Hospital. That letter seems to establish the truth of what we hinted at,—namely, that the foundation of the charity is not administered in accordance with the *strict letter* of the testator's will. It is very probable that more good is accomplished by the present use of the money, and that a wider reputation accrues thereby to the memory of the donor; but this does not alter the facts of the case. As legal opinion has given "latitude" to the words of the will, we will not be too carping, and will agree with our correspondent that the instrument alluded to is complied with as far as is *practicable and right.*

We have long thought that great care ought to be practised in departing from the strictest *letter* of the law in these matters; and facts which have recently been brought to the light in regard to the London charities have most strongly confirmed us in this opinion. According to these disclosures, some of the richest and most famous endowments of that great city have been little by little completely perverted from their original purposes, and in the management of others the most reprehensible extravagance, even to the point of impoverishment, has been indulged in. It is stated that the hospital and school endowments should be sufficient to take care of all the sick and educate all the children of the poor; but, in truth, the lower middle classes are ground down to the verge of destitution by the municipal taxes for such purposes. As an instance of the perversion of an educational foundation, it is sufficient to cite the famous Charterhouse school, where it now costs £95 a year for an education, although the school was originally intended for the children of the poor-rate payer.

"Again, the house-rent and establishment charges of seven of the wealthiest city companies alone amount to £164,000 a year, the interest on £2,000,000. And these companies, originally trades benefit societies for men as well as masters (in the old Merchant Taylors' Company we find the 'cissor' or cutter-out side by side with the merchant clothier), have long since eliminated the workman, and have now little more than a nominal connection with the trade they represent."

With the hospitals matters are not much better. The three richest institutions of such nature in London are Guy's, St. Thomas's, and St. Bartholomew's, and of these the latter two were originally workhouse asylums, supported by, and belonging to, the citizens of London. It is said that the new St. Thomas's Hospital will cost, when completed, something like £800 per bed, a sum which at the usual builder's estimate would have given each patient a separate room in a house in Belgrave Square. The little hospital at Poplar, mainly supported by the engineering establishments on the Thames, cost only £30 per bed; the Guards Hospital less than £100. Apply the latter estimate to St. Thomas's, and add £50 a bed for the value of the ground, and there would be a surplus left for pauper infirmaries for 2333 patients. Nor is it clear that the results of all this costliness are proportionate to the outlay. The Poplar Hospital in 1871 had only 14 deaths among 2774 patients, and not one instance of pyæmia. Of lying-in cases, which alone admit of an exact comparison between the workhouse infirmary and the hospital, the deaths in a model hospital ward during six years averaged 1 in 23; in eleven workhouses for the same period, *nil* in 2413.

GLYCERIN AS A MEANS OF DISGUISING MEDICINES.

WE desire to call the attention of our readers to the use of glycerin as a means of disguising medicines, especially those of an oily nature. Some time since it was announced that if castor oil be mixed with an equal part of glycerin and one or two drops of oil of cinnamon to the

dose, it can scarcely be recognized. We have used this mixture a great number of times, and can confirm all that has been said of it. Children take it out of the spoon without difficulty. We have given it to doctors without their discovering that they were taking castor oil.

In typhoid fever and other diseases in which turpentine is indicated, patients often object very much to its taste. The addition of half an ounce of glycerin to a six-ounce emulsion disguises almost completely the turpentine, especially if a drop of oil of gaultheria or of other volatile oil be added for each dose.

No doubt the principle is capable of wide extension. It is said that cod-liver oil may be disguised with glycerin and whisky; and Dr. Herbert L. Snow writes to the *British Medical Journal* that an addition of a small quantity of glycerin (about half an ounce to an eight-ounce mixture) will altogether obviate the sensation of astringency produced by the chloride of iron dissolved in syrup.

POSSIBLY, when, a few numbers back, in commenting upon Dr. Goodell's article, we urged the necessity of public *fosses d'aisance*, we asked for too much. The public mind—certainly the municipal mind—is not yet prepared for such an advance towards the convenience and comfort of the citizen public. The laying out, building, and ordering of a great city, the securing to its inhabitants adequate supplies of food and fuel, pure water, brilliant and cheap light, as well as adequate drainage and clean streets, are a great work,—so to speak, a process of evolution,—and require time. But in the primordial germ of "Commit no Nuisance," which has so long sufficed us, signs of change are seen. Increased function—we have no longer deserted lanes, our back streets are closely settled, and abound in women and children—calls for increased and higher organization. We hail with delight the coming comfort; but we must not forget that in evolution nothing is done *per saltem*. To skip at once from the dodging into a chance stable or board-yard, or sneaking up a dark alley at the imminent risk of being confronted by stray passers, or the worse choice of going into a vile dram-shop in order to find a place to relieve an all too full bladder,—experiences that few who have served in the southwestern district of the Philadelphia Dispensary have escaped,—to skip at once from such wretched devices to conveniently arranged, comfortable, cleanly public privies would be too great a leap. But it is not too much to ask for simply constructed, unobtrusive *pissoirs*,—little iron structures properly screened and kept pure by water constantly trickling over an enamelled surface to join the sewer by means of a trap. These could be placed at convenient points everywhere, and would prove a blessing to all classes of men whose occupations compel them to go from place to place for many successive hours without opportunity other than we have hinted at to relieve their bladders. Physicians would be by no means the only gainers; a score of occupations suggest themselves whose followers would gain by it, besides those who from vesical disease, from diabetes, etc., etc., are compelled to frequent micturition. Moreover, we are becoming a beer-drinking people; and, much as has been said in praise of inspiring, bold John Barleycorn, it is a cheering sign of the times when a people changes spirits for malt as an every-day beverage. And we all know what comes of beer! We have no wish to lower the delicacy of feeling on certain subjects, of which, as Americans, we may be proud. Quite the contrary. We plead for no such unblushing boxes as are to be found on the sidewalks of many streets in Paris. What we desire is the supply of a long-felt want, which is compatible with all decency, and the removal of one of the commonest and most frequent temptations of working-men to go into rum-holes.

OUR readers will no doubt remember the hysteroidal sufferings of a certain London journal on the occasion of the appearance of "*The Medical Times*," due to our having adopted a portion of its title. There lies on the table before us a recent periodical which we fear will cause a relapse of that affection, which was cured by the insertion of the word "Philadelphia" into our title. Canada now boasts the possession of "*The Medical Times*." It certainly would facilitate the understanding by readers of the sources from which quotations may be taken if *The Medical Times* would follow the example of its older brother, and adopt "Canada" as a surname. When we say, however, *The Medical Times*, our readers may rely that we don't mean either *The Lancet* or *The Medical Times and Gazette*.

EUROPEAN papers state that in Munich, where several cases of cholera have occurred, the rooks and crows which before flew about the steeples and through the trees of the public promenades have all emigrated. The same thing happened during the cholera seasons of 1836 and 1854.

According to Sir Samuel W. Baker ("Eight Years'

Wanderings in Ceylon," chap. viii.), the same phenomenon occurred at Mauritius, where the martins, which exist in immense numbers the year round, wholly disappeared during the prevalence of the cholera.

CORRESPONDENCE.

A "NEW" USE OF ETHER.

To the Editor of the Philadelphia Medical Times:

DEAR SIR:—I note in some of the daily papers an extract from the London *Lancet*, having reference to the etherization of patients for the purpose of preventing the suffering incident to removal from one place to another, and speaking of it as a new idea.

I am sure there must be many readers of the *Times* to whom, as to the writer, this is a familiar practice, and has been for years. Many invalids in this city are in this way taken painlessly for miles into the country, or to the sea-side, in the early summer of each year, and returned to their homes in the autumn in the same way.

With chloroform, which has been so exclusively used by the British physicians and surgeons, this plan would of course be highly dangerous; and for this reason, it must be supposed, the idea of anæsthesia for the journeys of invalids comes to them as a novelty.

Respectfully yours,

P.

REVIEWS AND BOOK NOTICES.

Thinkers and Thinking. By J. E. Garretson, M.D. (John Darby), author of "Odd Hours of a Physician," etc. 16mo, pp. 254. Philadelphia, J. B. Lippincott & Co., 1873.

"To know that we know what we know, and that we do not know what we do not know, that," said Confucius, "is true knowledge." This comprises the sum and substance, the all and yet the nothingness, of human knowledge; and this humbling thought is the burden of this little book. With upturned eye and outstretched hand, the author yearns to catch at the meaning of those great problems of life which have baffled the maturest minds of every age. But vain; alas, how vain! Oh, "grand thaumaturgic faculty of Thought," far transcending all things earth-born, nimbly overleaping such hurdles as time and space, and yet powerless, in vesture of flesh, to reach the empyrean of truth!

We can best express our estimate of this book by stating that it concerns itself about those footballs of philosophic conjecture,—the higher truths of life. It begins, in fact, where ends the author's "Odd Hours of a Physician," and is a commentary rather than a complete exposition of the various systems of philosophy. Step by step the reader is guided through the mental labyrinths of those schoolmen who have so broadly thought but so weakly moralized,—men of whom Cicero said, "*nihil tam absurdum, quod non dixerit aliquis philosophorum.*" The shrouded forms of antiquity emerge from the depths of time, and pass before the reader in one stately panorama, unbroken by chapter or section. Their errors the author exposes; their fallacies he points out, but in no carping mood,—it is the lover who chides. This manner of dealing with the sophisms of these *doctrinaires* reminds us of Isaak Walton's advice. "Handle him," writes that quaint angler in his directions for impaling a worm on the hook,—"handle him tenderly as though you loved him."

According to the complexion of the reader's mind will be the lesson imparted by this book. One class of readers will learn from it the folly of the contention between common seekers after truth, who, being alike honest in their intentions, proceed some from *a priori* premises, others from *a posteriori* data. Another will be led to utter thanks for a Bible which has saved them from mistaking for revelation the sentimental inferences of morbid psychological introspections,—thanks for a religion which has overthrown, and ever will overthrow, systems of sociology not based on God and law. A third class will ponder over that "entelechy" which Aristotle discusses, and which the author clothes with the attributes of the soul. The student of Sir William Hamilton will wonder whether he has not at last discovered the mystery of the "non-conditioned;" while the most strait-laced theologian may be led to doubt whether a pure materialism has in it anything more in conflict with his cherished doctrines than the new vocabulary and the unfamiliar terms employed by positive science for logical precision, the differences being not so much in the matter as in the manner.

In the attempt to reconcile positivism with so-called orthodoxy, the author, although evidently at heart a pantheist of the school of Spinoza, feels constrained to adopt the Cartesian system of philosophy. We say "*constrained*;" for however consonant with the phenomena of nature an absolute materialism may be, and however upheld by the subtlest thoughts ever expressed in terms of human speech, there is in man an inner consciousness of an alliance with a higher intelligence, of a relationship with the Infinite, which compels a belief in the existence of a divine personality. Again, there is yet another difficulty. The reasoning employed to carry us into materialism inevitably lands us beyond it into idealism. "If," says Huxley, "the materialist affirms that the universe and all its phenomena are resolvable into matter and motion, Berkeley replies, 'True; but what you call matter and motion are known to us only as forms of consciousness; their being is to be conceived or known; and the existence of a state of consciousness, apart from a thinking mind, is a contradiction in terms.'" Impressed by these difficulties, the creed of Descartes is, therefore, the one adopted by the author: "There is one entity,—God; this entity has produced two others, force and matter: in the first have these others their existence."

At the doctrine of evolution the author has his fling, and that in true Socratic style. "Has Mr. Darwin," he asks, "ever been able to change a pigeon into a gestating animal, or a bullock into a bipedal ruminant? Is there to-day one who may [can] cast the disk farther than the Roman athlete, or one who shall be found able to speak words wiser than [those of] Pericles?" These arguments have their value, but lack, in our opinion, the weight of those which contend that the theory of evolution makes greater demands upon our credence than does the theory of plan; that thus far it has failed to account for the origin of life; that, granting the modification of species by the influence of natural selection and by variations in external conditions, this does not prove any derivation by virtue of an internal evolutional impulse, nor does it consequently invalidate the primitive law of specific generation; that in his imposing position in the animal kingdom, in his gift of speech, and in his mental, moral, and spiritual nature, man bears the indelible stamp of his divine origin;

finally, that the resemblances in nature are but the departures from one general type or model, and, as such, exhibit not so much the modifications of evolution as the handiwork of a *single* Creator,—the mannerism, so to speak, of *one* great mind.

From this imperfect summary it will be seen that this book is well calculated to quicken seed that lies dormant in every brain. A perusal of its chapterless pages can hardly fail to break up the dull round of care and toil, not by beguiling the fancy with cadenced periods and inflated tropes, but by affording food for thought,—calm and philosophic, and yet unsatisfied, because always yearning with quenchless longings after the incomprehensible.

"Sweet Phosphor, bring the day
Whose conquering ray
May chase these fogs away!
Sweet Phosphor, bring the day!"

LECTURES ON MADNESS IN ITS MEDICAL AND SOCIAL RELATIONS. By EDGAR SHEPPARD, M.D. Philadelphia, Lindsay & Blakiston, 1873.

Much as has been written upon insanity, deep as is the knowledge of the specialists, we doubt if there is any subject of equal practical importance upon which the general rank and file of the profession know so little. The subject is not taught, at least that we know of, in our medical schools; the science is embalmed in elaborate treatises which frighten the practitioner from approaching it, so that we doubt if one doctor in ten could tell what are the forms or varieties of the affection. Dr. Sheppard was recently elected to a new chair in King's College, London, for the purpose, evidently, not of producing specialists, but of introducing students "within the precincts of that domain which is peopled alike by the wildest and happiest, the tamest and most mournful, of mankind,"—of giving them just such acquaintance with insanity as would suffice them in the daily duties of general practice. It is the lectures delivered in this course which, having taken the permanent, tangible body of printer's ink, lie before us, and the audience they now address is just such of the profession as those who, five, ten, twenty, or thirty years ago, in the days of their student life, ought to have heard such teachings but had not the opportunity. Looking at the book from the stand-point of a general practitioner, we think Dr. Sheppard has done his work well,—told his story graphically, interestingly, and instructively, and, let us add, honestly.

In the very outset he points out a very serious result of the general professional ignorance,—namely, that commencing insanity is often overlooked, to the detriment of the patient, and that the histories sent up to asylums are often absurdly false, to the detriment of the alienist and the complete shipwreck of his elaborate statistics. He says, "We have no power to alter the record, and it goes, with many other lies, to make up our statistics, which are really nothing more nor less than tabulated falsehoods."

The book is divided into seven chapters: the first discussing general subjects connected with insanity; the second, the nervous system, the pathology of insanity, and various general therapeutic and hygienic means and precautions, such as the Turkish bath, artificial feeding, precautions against suicide, etc.; the third, mania, acute and chronic; the fourth, moral insanity; the fifth, sixth, and seventh, puerperal insanity, general paralysis of the insane, idiocy, and imbecility, respectively.

The description given of a case of mania transitoria is exceedingly graphic, even thrilling; but more space and time ought to have been devoted to the discussion of the diagnosis of this affection, especially the distinctions between it, hysteria, and meningitis, concerning which, we must say, the doctor is very unsatisfactory. The chapter on puerperal insanity is full and good, and we agree with Dr. Sheppard that chloral is *par excellence* the *hypnotic*, which, we may add, is about all it is.

Space is wanting to follow the author through his one hundred and eighty-three pages of very readable matter. We commend the work as being what might be called a popular elementary treatise on insanity for the general profession.

From the typographical appearance of the book, we judge that it is sailing under false colors so far as the publishers are concerned: the clear black letters mark it as of English manufacture. This of course does not detract from, but rather increases, the value of the book to the reader, who, we hope, will get as much pleasure and profit out of it as we have.

THE POPULAR TREATMENT OF CHILDREN, ETC. Annual Discourse before the Massachusetts Medical Society, 1873. By CHARLES E. BUCKINGHAM, M.D.

INFANT FEEDING AND ITS RELATIONS TO INFANT MORTALITY. Reprint from *New York Medical Review*.

It is rather too bad that we cannot come to a universally accepted opinion about the dilution or non-dilution of cows' milk for infants. While one party is convinced that pure milk is none too strong, we find another, of which Dr. Charles E. Buckingham is, we hope, an extreme exponent, recommending a dilution of one to four, and, further, giving a general rule that where curd appears in the evacuations the milk should be steadily diluted till it disappears (or the child). Surely we should be able to decide this question by a moderate amount of systematic investigation. We believe in pure milk, and recommend it with average results. Our professional brother around the corner believes in two-thirds water, and recommends it with results, to him, as satisfactory. Can it be possible that both are nearly right?—that diluted milk given freely and often will do pretty well, that strong milk given scantily and not so often will also do pretty well, and that deviations from either path lead us into trouble?

Both pamphlets before us contain allusions to the variation that exists between the milk of different breeds of cows and cows of the same breed, showing how one cow's milk is very different from one other cow's milk, and how safety exists only in the actual testing of the milk,—the mere name of "one cow's milk" being a soothing deceit. Some English writer—we forget who—recommends a city-fed dairy, which could be inspected, and considers that green food renders cows' milk too laxative in summer for most infants. For another reason we think it worth trying, being of the opinion that age and travel, while they may improve men, have a decidedly opposite effect upon the lacteal fluid.

The article from the *Medical Review* goes more thoroughly into the variation of cows' milk, a subject to which Dr. Buckingham merely alludes; it also bestows its approval upon the rules of the Philadelphia Obstetrical Society for infant management, while it handles some other "rules" with uncovered hands.

ALBUMEN OBTAINED FROM MILK.—M. Schwalbe has found that by adding one drop of the oil of mustard to twenty grammes of cows' milk, the casein is transformed into albumen. If this discovery is confirmed, it will be of great importance in the art of calico-printing.—*Druggists' Circular.*

AN interesting case is reported by M. Dieulafoy, in which an infant, six hours old, was poisoned by a dessertspoonful of laudanum, and from whose stomach the poison was extracted, before it had taken fatal effect, by means of the pneumatic aspirator.

SELECTIONS.

A NEW MODE OF TREATING FUNCTIONAL DYSPEPSIA, ANÆMIA, AND CHLOROSIS.

BY DR. C. E. BROWN-SÉQUARD.

IN 1851 I had to treat a very bad case of dyspepsia, and succeeded in curing the patient by a plan of treatment which, I think, deserves attention. Since that time I have employed it with complete or partial success in a number of cases of dyspepsia, of chlorosis, of anæmia, and also as a means of ameliorating or curing nervous affections caused by gastric disturbances or poverty of blood. I could not say, as I have not kept notes of all the cases, how many times it has succeeded or failed. In a number of instances where failure occurred I have found that the patients had not carefully followed the rules, and that the failure was, at least in a good measure, due to this lack of care. In two cases only some increase of flatulency and acid eructation took place for three or four days, when the plan was given up. In a case of dropsy, attended with anæmia, dyspeptic pains were increased for a week, when the plan was abandoned. These are the only instances I remember in which some bad effect was produced by this plan, and this aggravation soon ceased.

The first patient I submitted to this plan was a scientific man, thirty-four years old, of strong constitution, but from several causes reduced to a lamentable state of health. For about eight years he had been working very hard, taking no exercise, and living almost all the time in a vitiated atmosphere. He slept very little, and usually passed eighteen or even nineteen hours a day writing, reading, or experimenting. His diet was miserable, and, with the object of avoiding the need of much food, he took a great deal of coffee. He gradually, though slowly, became exceedingly weak. His digestion, which had been very good all his life before he began to work so much, had gradually become very bad. He suffered greatly from pyrosis, and a feeling of great distress, and gastric distention after each meal. Acid eructations and gas were frequently thrown up into his mouth, and when he did not vomit he found that his food remained on his stomach so long that in the morning he frequently rejected things eaten the previous day. At last he had to give up work and stay in bed. But no improvement occurred from the rest he then had or from various modes of treatment. His emaciation and weakness and dyspeptic symptoms increased, and his friends decided to have him removed to the country. But he was so weak that he had to be carried in a litter to the railway station. After a few days, finding that he had not improved, I decided to try a radical change of his alimentation as regards the quantity of food to be taken at a time. Instead of *three* meals a day I made him take *sixty* or more. Every twelve or fifteen minutes he took two or three mouthfuls of solid food, chiefly meat and bread. He drank a little less than a wineglass of Bordeaux wine and water every thirty or forty minutes. On the very first day this mode of alimentation was begun, his digestive troubles disappeared, and within a week he was so well that he returned to Paris, not, however, to go to work again, as he had been rendered wiser, but to prepare to go to the sea-shore. He continued the same mode of alimentation for about three weeks, and then gradually diminished the number of his homœopathic meals and increased the amount taken at each of them until in about eight or ten days he came to eat only three times a day, and a full meal at each time. His strength during the first week had become almost as great as it ever had been previous to his illness. Since that time his life has been one of great hardship, which he has borne remarkably well, and dyspepsia has only troubled him in a slight degree rarely and for short periods.

The plan, as stated in the above case, consists in giving but very little of solid or fluid food or any kind of drink at a time, and to give these things at regular intervals of from ten to twenty or thirty minutes. All sorts of food may be taken in this way; but during the short period when such a trial is made it is obvious that the fancies of patients are to be laid aside, and that nourishing food, such as roasted or broiled meat, and especially beef and mutton, eggs, well-baked bread, and milk, with butter and cheese, and a very moderate quantity of vegetables and fruit, ought to constitute the dietary of the patients we try to relieve. This plan should be pursued two or three weeks, after which the patient should gradually return to the ordinary system of eating three times a day.

It is hardly possible to give more detailed rules as regards this hygienic mode of treatment. On the one hand, I have found few persons willing or able to follow it fully. On the other hand, many patients, especially those who have no dyspepsia, do not need to take so minute an amount of food at a time. Besides, it is certain that the quantity of food required varies notably in different persons. Prof. John C. Dalton states that the entire amount of food needed by a man in full health and taking free exercise is: of meat, 16 oz. av.; bread, 19 oz.; fat, 3½ oz.; and of water, 52 fl. oz.; *i.e.*, about 2½ lbs. of solid food and rather more than 3 pints of fluid. According to Dr. Edward Smith and other European hygienists, the amount of solid food and of water required each day is notably larger than that marked out by the able American physiologist I have named. My experience with the patients on whom I have tried the plan of feeding above mentioned shows that the amount of solid food required by an adult is nearly always as follows: from twelve to eighteen ounces of cooked meat and from eighteen to twenty-four ounces of bread. As regards the quantity of fluids I have allowed, it has always been notably less than the amount indicated by Dr. Dalton (three pints) and by Dr. E. Smith (four and a half to five pints).

I hardly need say that, in carrying out the plan I propose, attention must be paid to three points: first, the liking and the disliking of certain things by the patient; second, the importance of variety in food; third, the digestibility of certain things compared with others,—digestibility which varies immensely in different patients. When I found that there was no disgust for a meat-and-bread diet I ordered that roasted beef or mutton, with bread, be the almost only kinds of solid food taken. But most patients were either soon disgusted with this diet or refused even to try it. Having ascertained this, I allowed the selection by each patient of his own dietary, insisting, however, that the quantity of cooked meat should be at least twelve ounces a day. The most varied diet as regards the kind of food can be followed, however, under this plan as well as when one has only two or three meals a day. The only absolutely essential points are that the amount of food taken every ten, fifteen, twenty, or thirty minutes be very small (from two to four mouthfuls), and that the quantity of solid food in a day be from thirty-two to forty ounces, or a little less when, instead of water, the patient drinks beef-tea or milk.

I will not enter into long explanations to show how a marked benefit or a cure can be obtained in functional dyspepsia, in anæmia, and other affections, by this mode of alimentation. I will simply say that the facts I have observed agree with the view that we are naturally organized, like most if not all animals, to eat very frequently, and not, as we do, two, three, or four times a day. It seems certain from the facts I have observed

that functional dyspepsia, when once it has begun (never mind by what cause), is kept up and increased by distention of the walls of the stomach. This fact is already well known, and physicians generally recommend that the quantity of liquid taken be very small, and that the solid food be as nourishing as possible, so that its bulk may be reduced, with the view of avoiding great dilatation by the fluid and solid substances introduced in the gastric pouch. But, although deriving some benefit from this diminution of distention, many patients continue to suffer who might be benefited or cured by the plan I propose.

It may be asked if there is no danger that distention of the stomach by a full ordinary meal, after a patient has followed for two, three, or four weeks the plan I propose, would not be more difficult and a source of greater trouble than before that organ had been allowed to contract considerably during the time this plan has been pursued. Facts answer this question in a way that leaves no doubt. There has never been in the cases I have attended the least trace of an increased trouble due to that cause. Even those patients who have not derived benefit from my plan of alimentation, and among them two who had while following it more acidity and flatulency, have at any rate had no increased trouble after having given it up. It is probable that the good obtained from this plan in dyspeptic patients depends at first on the rest given to the irritated stomach, and subsequently on a great amelioration in the quality of the gastric juice.

In anæmia and chlorosis, not complicated with dyspepsia, the advantage of this plan lies in the rapidity of the formation of blood from the notably increased amount of food that the patient can digest.

I have made but very few trials—and incomplete ones—of this plan in cases of organic affections of the stomach. I cannot but think, however, that it deserves being tried in most of such cases.

Against the obstinate vomiting of pregnancy this plan has already been employed successfully by a number of physicians, and once by myself in a case in which many modes of medical treatment had failed.—*Archives of Scientific and Practical Medicine.*

LIME-BATHS IN MEMBRANOUS CROUP.

IN the *Chicago Medical Examiner* of August 15, Dr. John Bartlett commends the following method of using lime-baths in membranous croup:

"Having formed a small enclosure by covering a clothes-horse with sheets, or by taking advantage of the favorable relation of a door to the corner of a room, so as with bed-clothes to close in a suitable space, the preparations proceed as follows: To one side of the tent, on a piece of old carpet, is placed a small tub; in it is put a common wooden bucket, one-quarter filled with boiling water; at hand is a supply of unslacked lime, and a kettle of boiling water. The nurse and child, or the child alone, if of such age as to remain without an attendant, take position towards the middle of the enclosure, the face of the patient being turned from the tub; by raising the sheet, several pieces of lime, as large as the fist, are placed in the bucket; after a few minutes the evolution of the vapor begins. The physician, through that fold of sheeting forming the door of the tent, frequently takes a view of the steam within, estimating its density by the sight, taste, and smell. It is impossible to indicate the proper degree of this density. I should say it should be somewhat less than that of the cloud of steam escaping from the exhaust-pipe of a steam-engine. The smell and taste of lime should not be too pronounced. The nurse should be instructed to give notice if the steam or heat oppress her, so as to produce a feeling of faintness, sense of suffocation, or irritation of the air-passages. Should the vapor be deemed too dense, its intensity may be diminished by opening the flap of the enclosure, or, if need be, by withdrawing the bucket. The pulse of the patient should be noticed from time to time, in view of the possibility of exhaustion supervening, an event said to have occurred in the practice of some physicians. More lime and hot water may be placed in the bucket as required. The tub is intended to receive any overflow from the bucket, which, in prolonged cases, will require to be emptied."

He further says, "The modus operandi of the agent is uncertain; of course, the simplest theory is that it dissolves the false membrane. Some, as Drs. Meigs and Pepper, refer all benefit from its use to the heated steam evolved. Dr. J. L. Smith suggests that the lime-bath may be an improvement on the steam-bath, in this, that in the latter, on account of the necessity of keeping the room closed, the air soon becomes charged with exhaled carbonic acid, whereas in the former the expired acid is speedily destroyed by the vaporized lime. May it be possible correctly to extend this idea of Dr. Smith's? Thus, the dyspnœa is in great part a result of the inability of the respiratory organs to relieve the blood of its carbonic acid. By using air, as in the lime-bath, charged with a chemical having a remarkable affinity for this acid, may it not be that the pulmonary interchange of gases is advantageously supplemented?

"I have knowledge of four cases of membranous croup treated by lime; of these, two were speedily relieved. In a third, recovery ensued, though the lime-baths were abandoned for the potash treatment, when the child, though very near death, was thought to be a little better. In the fourth case, the disease had existed one week before medical treatment was sought; an indifferent article of lime was inefficiently used for a time; death resulted. In the last two cases, relief was afforded by the baths; and although they were finally abandoned in one case, and imperfectly used and neglected in the other, there was, in both instances, reason to question the curative power of the agent. In none of these cases was the lime used to the exclusion of other remedies. So far as observed, however, improvement was in no wise referable to the medication.

"This mode of treatment is useful in those cases in which the attendant is uncertain of his diagnosis; in which, while he believes he has to do with a case of simple laryngitis, he fears membranous croup. In such instances the lime-bath relieves the distress of the patient, and tends to quiet the anxiety of the practitioner, seeing that he is treating the apprehended disease with no danger of injury to his patient from the *nimia cura medici.*"

GLEANINGS FROM OUR EXCHANGES.

LATERAL ASYMMETRY IN THE BRAINS OF A DOUBLE HUMAN MONSTER (by Prof. Burt G. Wilder).—The four cerebral hemispheres of a dicephalous human monster present such lateral variation in the fissures as are usually noted in a single individual, with certain other features peculiar to a monstrous organization; in one respect, at least, the right hemisphere of the right brain resembles the left hemisphere of the left child. The central right brain is the larger, and this may be connected with the direction of the median leg towards the left side, as if pushed out by the superior power of the right child.—*Proc. of the Am. Assoc. for the Adv. of Science.—N. Y. Tribune.*

Chlorate of Potash and Glycerin Injections in Chronic Dysentery.—Dr. Theodore Mead advocates the injection in chronic dysentery of half a drachm of chlorate of potash rubbed up in half an ounce of glycerin and mixed with three to four ounces of warm water. This should be thrown into the bowel thrice daily, and should be retained as long as possible. He gives two cases as illustrative of the results of this plan of treatment.

1. A young man, æt. 27, was first attacked with dysentery in 1861, and had never been rid of the disease, or had a natural stool, up to June, 1868, when he came under notice. He was then having twenty to thirty stools in the twenty-four hours; was weak and anæmic; muscles atrophied; skin dry; pulse weak, and his general appearance indicated approaching dissolution. The use of opium and whisky, which had always been ordered him in large quantities during the whole of his sickness, was at once prohibited; he was given quinine, iron, strong beef-tea, and forty-grain doses of subnitrate of bismuth suspended in mucilage. The injections were at once commenced, and at first gave him intense pain and were rejected as soon as thrown up, but a decided effect was produced. In a short time the unpleasant sensations subsided, and in a few days he could hold the injections an hour. In twelve days his stools were reduced to eight or ten in the twenty-four hours, and were almost free from pus and mucus. In three months he was able to resume daily work, and has continued it ever since, with no return of his dysenteric troubles.

2. In the second case the dysentery followed an attack of bilious fever, was very obstinate, resisted all the ordinary remedies, and brought the patient to the verge of the grave. The treatment was substantially the same as in the other case, and recovery was complete in two and a half months.—*New York Medical Journal*, September, 1873.

The Antagonism between Atropia and Physostigmia (Prof. Roberts Bartholow: *The Clinic*, August, 1873).—In investigating the therapeutic antagonism of atropia and physostigmia, the following experiments were made:

1. Under the skin of a frog 80 minims of a solution containing $\frac{1}{48}$ of a grain of physostigmia and $\frac{1}{24}$ of a grain of atropia were injected. In fifteen minutes there was complete paralysis of the legs, and partial paralysis of the arms, though sensation was not abolished. Soon after, however, on pinching an extremity or on lightly striking the back, the body and limbs were thrown into violent tetanic spasms. Meanwhile the frog lay relaxed and motionless, and when raised up by the head the limbs hung down perfectly flaccid. He remained in this condition apparently dead for half an hour, when $\frac{1}{4}$ of a grain of atropia was injected. Two hours after this all the toxic symptoms had disappeared, and the frog was as active as before the experiment.

2. Inserted under the skin of a frog $\frac{1}{16}$ of a grain of physostigmia; paralysis noticed in three hours. Then injected $\frac{1}{12}$ of a grain of sulphate of atropia; in a few moments tetanic symptoms manifested themselves on the application of an irritant. When an additional $\frac{1}{12}$ of a grain of atropia was administered, a succession of tremors agitated the muscles, and after these ceased no tetanic spasms could be induced.

3. Injected under the skin of a cat $\frac{1}{8}$ of a grain of atropia, producing in a few minutes dryness of mouth, redness of fauces, dilatation of pupils, partial paralysis of hind legs, diminished sensibility to touch, pain, and changes of temperature, with reflex movements remaining normal. Then injected $\frac{1}{8}$ of a grain of calabarine, causing, after five minutes, contraction of pupils, paralysis of all the muscles of animal life, occasional tremors and slight tetanic spasms, slowness of respiration, which after three hours occurred only once in five minutes; anæsthesia of cornea, and diminished action of heart; the latter, however, continued after respiration ceased. In several other experiments the proportions of the agents were varied, to ascertain how far they were antagonistic as to toxic power. It was found that in corresponding doses physostigmia was more powerful than atropia, as well as slower in its action, and that to obtain a balance of effects enough of the latter must be given to dilate the pupils, and its influence kept up by continued use. Large quantities of both, given together, so overpower the nerve-centres as to destroy life.

The results obtained from the above experiments may be stated as follows: Atropia and physostigmia both produce paralysis; the former by destroying muscular irritability and the excitability of the motor nerves, the latter by paralyzing the spinal cord. They are antagonistic in their action on the sensory nerves,—atropia destroying and physostigmia heightening their sensibility. They are antagonistic in their influence over the respiratory movements,—atropia increasing and physostigmia decreasing them. They are antagonistic in their action on the heart,—atropia exciting the cardiac ganglia and physostigmia paralyzing them; upon the general sympathetic system the same effect is produced, and by virtue of this the pupil is dilated by one and contracted by the other. The exaltation of the reflex faculty noticed in frogs is peculiar, and cannot as yet be explained; atropia when given by itself weakens the reflex faculty, and physostigmia under like conditions destroys it, yet their combined use produces effects which are like those of strychnia, and which come on together with the toxic manifestations of the agents. The tetanic spasms are less marked in warm-blooded animals, but they do occur to a limited extent.

Case of Extra-Uterine Fœtation (Joseph Garland, M.D.: *Boston Medical and Surgical Journal*, July, 1873).—Mrs. C., æt. 32; had been married about nine years, and was the mother of two healthy children. She had had one abortion, after which her menses were regular, and she enjoyed good health. Pregnancy was first suspected in May, 1871, from which time gestation went on without any occurrence of special note, except frequent attacks of pain and discomfort in the region of the uterus, until January, 1872, about the time of expected delivery. At this date slight pains were felt in the back and lower part of abdomen; there were rapid and vigorous movements of the fœtus, and a dark bloody discharge from the vagina; these symptoms soon disappeared, and did not return. Examination revealed a large round tumor reaching from the pubes to the ensiform cartilage, centrally located, and about the usual size, but less resistant than the uterus, containing a fully-developed living fœtus. No fœtal heart-sounds could be heard. Digital exploration gave a contracted os, a long cervix, and in the posterior culde-sac a large projecting surface, sudden pressure on which moved the whole tumor. On March 16, as there were no further signs of labor, Simpson's sound was passed; it entered with difficulty two and a half inches, seeming to impinge upon and then pass by some solid and impacted body. On March 17, peritoneal inflammation set in; this was succeeded by diarrhœa, during which the patient became very weak and emaciated, and the abdomen rapidly decreased in size. At first nothing unusual was noticed in the discharges, but upon inspecting them, on April 24, portions of a decomposed fœtus, both soft parts and bones, were found. When the rectum was examined, the lower margin of an opening was detected in its anterior wall. The last piece of bone was discharged on May 4. After this, notwithstanding the diarrhœa was nearly checked, and

the most sustaining treatment used, the patient gradually sank, and died on the 20th of May, 1872.

Autopsy.—A hard, irregular tumor was found extending from the cavity of the pelvis to the umbilicus, the greater part being to the right of the median line. On incising the mass, an oblong cavity six and a half inches in length by five and a half in breadth presented itself, filled with fœtal bones and a dark putty-like matter. No placenta or placental attachment could be seen. Inferiorly and to the right of the mass was the uterus, twisted on its axis and retroverted; inferiorly and to the left, the large opening communicating with the rectum. Superiorly and anteriorly it was attached to the abdominal parietes, the intestines and the omentum, and was in a gangrenous condition. The walls of the sac were thick and dense, their internal surface being ragged, dark-colored, and sloughing. The bladder was slightly adherent, but otherwise normal. The uterus itself, with the exception of its peritoneal surface, and its posterior portion which formed part of the base of the sac, was in a nearly healthy condition. The left ovary could not be identified, and the left Fallopian tube could not be isolated from the walls of the cavity. The matter contained in the sac consisted of the soft parts of the fœtus which had not escaped per rectum, together with all the cranial bones and a number of the larger bones. The length of the shaft of the femur was $2\frac{3}{8}$ inches, and of the tibia $2\frac{1}{4}$ inches, showing that they belonged to a well-developed nine months' fœtus.

The most probable explanation of this case is, that the impregnated ovum fell into the peritoneal cavity, and, throwing out attachments, developed there; the placenta being perhaps attached to the posterior surface of the uterus.

THE PHYSIOLOGICAL ACTION AND THERAPEUTICAL EMPLOYMENT OF ERGOT.—Dr. S. Kersch (*Betz's Memorabilien*, vol. xviii., No. 5) finds that when a concentrated infusion of ergot is injected into the jugular vein of a dog, the animal becomes restless, howls loudly, and its extremities become perfectly rigid in less than half an hour. Its body is cold to the touch, and the temperature low. If one of the arteries in the limbs be now exposed, it is found to be strongly contracted, firm, and hard to the touch. The pulse-tracings obtained from the arteries show small and short curves, with long intervals between them, indicating that the pulse is slow and the expansion of the artery small. The effect of ergot on the arteries is still more distinctly seen by exposing the arteries of a healthy animal and comparing them with those of a poisoned one. A concentrated infusion of ergot mixed with milk, and administered to pregnant cats, produces similar effects; but the restlessness and cries are more strongly marked, and the symptoms of intoxication are later in appearing. Within two days, at most, the young are expelled. The parent animals die from convulsions and exhaustion. A concentrated infusion of ergot administered to dogs along with milk produces, within three hours, great contraction of the arteries, so that the small ones become quite impermeable, and look like nerves. Ergot likewises causes contraction of the arteries, and consequent slowness and hardness of the pulse, in man. In all the experiments on fasting animals, ergot produced violent retching, and, in most of them, vomiting. When the dose was large enough, almost all died on the fourth or fifth day, from convulsions. Although ergot is much used in hemorrhage after delivery, it is rarely given in puerperal fever; but Kersch was led by an accident to try it in this disease. In two cases which he details, as well as in several others, the best results were obtained; the pulse becoming slower, and the temperature falling shortly after the administration of the remedy. Kersch recommends a trial of ergot in febrile cases arising from various causes.—*The Medical Times of Canada.*

WEANED FROM HYPODERMICS.—A young lady who had been accustomed for a long time to the use of opium applied to an eminent physician to make hypodermic injections of morphia. He commenced by making the injections as desired of morphia and water; by degrees the quantity of morphia was lessened without her knowledge, until within a few days nothing but pure water was injected; after each injection she would lapse into a quiet sleep, in the same manner that she had been accustomed to when under the actual use of morphia. This treatment was continued for several months, during which time tonics had been used, to strengthen the system and bring about a healthy condition after being so long a time under the influence of opium. When he considered it safe to do so, he told her plainly that she had not taken a particle of morphia for several months, and was entirely free from its influence; this statement of course was received with intense surprise, as well as unbounded joy. The lady is to-day entirely free from any desire for opium.

We give below the formula for an "anti-opium pill" which has been used for several years in the English hospital at Pekin, China, and its efficacy proven in numerous instances, but of which we have no actual knowledge:

℞ Henbane, gr. $\frac{1}{4}$;
Gentian, gr. $\frac{1}{2}$;
Quinine, gr. $\frac{1}{4}$;
Ginger, gr. $\frac{1}{2}$;
Camphor, gr. $\frac{1}{2}$;
Cayenne, gr. $\frac{1}{2}$;
Cinnamon, gr. $\frac{1}{2}$.

Soap and syrup for coating.
Three pills a day.

—*The Druggist*, July 15, 1873.

TREATMENT OF OBSTINATE CONSTIPATION.—Dr. Macario, of Nice, in a communication to the *Lyon Médical*, observes that in treating constipation most practitioners confine themselves to enemata, laxatives, or more or less irritating purgatives, which in point of fact rather aggravate than cure the affection. He therefore wishes to make known what he says may be truly termed a "heroic" remedy, which he has employed during twelve years with such constant success that he cannot but regard it as infallible.

Constipation, as every one knows, may be produced either by intestinal excitement with deficiency of secretion (nervous constipation), or in consequence of deficient contraction of the muscular coat of the intestine. Here it is produced by atony or intestinal indolence, which bad anti-hygienic habits have induced and keep up. The prolonged contact of the fæces with the rectum blunts the sensibility of the mucous and muscular tissues, and the synergical contraction of the upper portions of the large intestine either does not take place or does so in an insufficient degree, constipation being the result. In *nervous* constipation the following pill should be given: Pure sulphate of iron, ten centigrammes; Socotrine aloes, five centigrammes; atropine, from one-third to one-half of a milligramme. In the *atonic* form, for atropine one centigramme of powder of nux vomica may be substituted. By the aid of these pills regular stools may be procured, even in the subjects of obstinate constipation due to *ramollissement* of the brain and chronic myelitis with paraplegia. Dr. Macario gives from one to three pills immediately after dinner, the object being to produce one easy, natural, non-diarrhœic evacuation. If more than this is effected, the dose is to be diminished, one or two pills sufficing in most cases. The use of these "antistyptic" pills ought not to be continued indefinitely, a longer interval

being allowed to elapse between their administration in proportion as the constipation diminishes, it being of importance to allow the organs to resume their spontaneous action without any auxiliary. If the constipation returns, the pills can be again had recourse to.—*New York Medical Journal.*

Breech Presentations—Rapid Delivery.—The infant's body is delivered with its back superior, the patient lying on her back. First draw the cord down a little way; then, if the head has passed the superior strait, the face is in the hollow of the sacrum; if not, bring it down, according to the usual rules, as rapidly as possible. Then introduce the index finger of one hand into the mouth of the child, drawing the chin down; at the same time with the fingers of the other hand push the occiput up, thus securing perfect flexion. This accomplished, the face of the child will present at the vulva; and immediately withdraw the finger from the infant's mouth, and pass two fingers into the rectum of the patient, and you readily reach the vertex and use these fingers as a lever, lifting *upward* and *outward*, while a similar movement is communicated to the body of the child with the other hand placed below it. If you are on the patient's right side, your index and middle fingers of the right hand will be against the vertex of the child; if upon your left, those of your left hand. If unfortunately you have failed to deliver the body with the back superior, and you have the face towards the pubes, the same general steps are necessary, save that the finger of your right or left hand, as the case may be, should be *kept* in the child's mouth while the upward and outward movement is made with the fingers on the vertex. This method of delivery is applicable to all cases where the body of the child is born first. By it the head can be delivered in less time than required for the application of forceps, and it is much safer for the mother at least. Pursuing it, I have never lost a child in breech presentation, or in podalic version.—*Dr. Langdon, in the American Practitioner.*

The Treatment of Cholera.—Dr. Fergus, of Glasgow, gives the following rules:

Avoid all depressing passions and exhaustion of nerve-force; avoid brandy, or other stimulants, as they are not preventives; make no change in the usual diet, if that is simple, digestible, and nutritious. Avoid excessive fatigue; if overheated, beware of chill, but see that the skin is kept comfortably warm: should the slightest diarrhœa occur, the patient should *lie down immediately*, and, if chilly, have bottles of hot water placed to the feet and legs, also take thirty drops of laudanum, and if a physician is not at hand, the following recipe may be used:

℞ Oil anise, oil cajeput, āā ℥ss;
Ether sulph., ℥ss;
Liquor acid Halleri (which consists of one part of concentrated sulphuric acid to three parts of rectified spirits), ℥ss;
Tinct. cinnamon, ℥ij.

Give ten drops every fifteen minutes in a tablespoonful of water. The opiate may be given with this *once or twice*, but not more.

The Papillary Representative of Two Arms of a Double Human Monster (by Prof. Burt G. Wilder).—A dicephalous human monster, mentioned in the previous paper, has one right arm and one left arm. The missing arms seem to be represented by a nipple-like papilla, on the line of union of the two individuals. Under this is a median and symmetrical clavicle and scapula, into which are inserted most of the usual muscles. Does such rudiment entitle the monster to the title of *Tribrachian?* Excepting the rudimentary arm, this specimen nearly resembles that described by Prof. Wyman in *The Boston Medical and Surgical Journal* for March 29, 1866. In this, however, the anterior separation was more complete, and allowed the formation of a median and symmetrical arm, like the median legs of this and of that specimen. —*Proc. of the Am. Assoc. for the Adv. of Science.*—*N. Y. Tribune.*

MISCELLANY.

Intravenous Injection of Ammonia in Snake-Bite.

"To the Editor of the *Indian Medical Gazette:*

"Dear Sir:—History repeats itself in science as in other matters. To those curious in the question of the treatment of snake-bite, the accompanying extract from Fontana, nearly one hundred years old, will be interesting and suggestive.

"Yours faithfully,
"J. Fayrer.

"London, 22d May, 1873."

TRANSLATION.

"'Opusculi scientifici de felice Fontana, p. 125, letter N,

"'Addressed to M. Gibelin, Aix en Provence, 10th July, 1782.

"'It is very true that several cases of cure of viper-bites by the injection of spirits of hartshorn (ammonia) into the veins have been reported in our Italian papers, and it is also true that these cures appear surprising and almost miraculous from the manner in which they are presented to us: it appears, moreover, that certain persons take a quiet pleasure in assuring the public that the true specific against the poison has at last been found, that which I have in vain sought for many years, whilst with philosophical candor I have declared the inutility of my long researches on the subject.

"'Truly, I must confess that I did not think of seeking a remedy in "*medicina infusoria*," for reasons that I omit at present, but which you can easily imagine for yourself, nor did it concern me to consider the case mentioned by Valisneri, being a solitary one. . . . It is certainly the case that the vaunted cures are too few to form even a probable proof that this remedy is a specific, and that those cures are due to it, and not to the strength of the individual and to the non-deadly nature of the viper poison. Perhaps one hundred cases would hardly be sufficient to make it certain that spirits of hartshorn is the specific against the venom of the viper: if it were so, the bitten animals into whose veins it is injected should be preserved from death, and the more easily so the larger the dose and the sooner after the bite it is injected. I have employed in my experiments lambs and very large rabbits. The lambs have been bitten twice and even three times; the rabbits only twice. The bites have been inflicted in the thigh, and the spirits of hartshorn has been *introduced into the blood in the jugular vein* immediately after the bite, so rapidly that in some animals only a few moments intervened.

"'The quantities used were twenty to forty drops, doses that could be borne by the animals without fatal effects, as I had ascertained by experiment on animals not bitten; a larger dose would have done harm and might have killed the animals. Three lambs were bitten on the thigh; and all died in less than two hours, one after a few moments.

"'Two rabbits out of nine that were bitten survived ten hours, all the others died in less than one hour. I am aware that a dozen experiments are insufficient to prove the *absolute inutility* of the spirits of hartshorn against the bite of the viper, but they are sufficient to show that we should not place confidence in the few favorable cases cited by the supporters of this remedy.

"'So long as medical men are not experimenters, the art of healing will not make great progress; and it is to this, and nothing else, that it is to be attributed that medicine has remained stationary from the time of Hippocrates until the present, whilst all other sciences have been progressing with gigantic paces.

"'The physician considers to be the remedy of a disease that medicine after the use of which recovery has followed, when really, in sound logic, no other deduction should be made than that the vaunted remedy has not killed the patient. We observe that the physician quietly believes, under the influence of this sort of reasoning, that the sick person would certainly have died had he not treated him, and with this he assumes either that of which he knows nothing, or which is doubtful, if not altogether false; and it is not enough that the sick person recovers, but he must also assure himself that he would have died without the remedy.'"

THE following preamble and resolutions were passed by the Board of Regents of the University of Michigan at a late meeting:

WHEREAS the Legislature of the State of Michigan at its last session re-enacted the law of 1855, requiring the appointment of Homœopathic Professors in the Medical Department of the University; and whereas it has always been claimed by the Board of Regents that the law was an infringement upon the rights and prerogatives of the Board; and whereas the Supreme Court of the State has refused to grant a mandamus requiring the Regents to comply with the law, thereby substantially confirming their action: therefore,

Resolved, That we maintain the position heretofore taken, and decline to make the appointments required by the law.

Resolved, further, That we do this in no spirit of factious opposition to the apparent will of the Legislature, but because we believe the true and best interests of the University demand it.

Resolved, That we reaffirm the former action of the Board expressing a willingness to take official charge of an independent school of homœopathy and connect it with the University, whenever the means shall be provided for the payment of its professors.

THE SHAH'S PHYSICIAN.—The body-physician to the Shah is a Frenchman, Dr. Tholozan, who accompanies him on his travels. He has held this position now for fifteen years. He is a member of the Paris Academy of Medicine, and military physician in the French army. He made himself a good reputation by his works on the origin and development of cholera. His epidemiological papers have given him such a position in England that he was banqueted in Greenwich. His second physician, who also accompanies him, is an Englishman, named Dikson. It was his good fortune to have cured the Shah of an obstinate fever during the absence of his physician in Europe.—*All. Wien. Med. Zeit.*, July 1, 1873.—*The Clinic.*

ENDOWMENT OF A MEDICAL COLLEGE.—James Johnston, of Indianapolis, has endowed the Medical College of the Northwestern Christian University (Indiana) with half a million dollars and a site for its location.—*The Clinic.*

WE regret to see that the intention is announced of discontinuing the *Madras Monthly Medical Journal.* This excellent monthly has apparently succumbed to the competition of more frequently published papers, such as our able contemporary the *Indian Medical Gazette.*

MR. WILLIAM MAC CORMAC has been appointed successor to Mr. Le Gros Clark as Surgeon to St. Thomas's Hospital.

NOVEL ADVERTISING.—The following appeared in the *Cincinnati Commercial* of August 26:

"BIRTHS.

"ANDERSON.—August 25, to Mr. and Mrs. Lang T. Anderson, a daughter; weight 12¼ pounds. Thanks to Dr. Comegys."

MR. BROUGHTON, the Government quinologist at Ootacamund, in a report to the Chief Secretary, denies that Eucalyptus globulus contains quinine, quinidine, cinchonidine, or cinchonine, in any such proportion as has been asserted.

EXTRAORDINARY FATALITY.—According to the report of the Board of Health of St. Louis, there were two hundred and ten deaths from *cholera morbus* in that city from June 21 to July 19, inclusive. While extending our sympathies to the citizens of St. Louis, we would suggest to the Board of Health the propriety of importing a rural physician to give them a few lessons in diagnosis and treatment.—*Leavenworth Medical Herald.*

THE reports of M. Nélaton's health are this week much more favorable.—*British Medical Journal*, August 30.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM SEPTEMBER 9, 1873, TO SEPTEMBER 15, 1873, INCLUSIVE.

WOODHULL, ALFRED A., ASSISTANT-SURGEON.—Granted leave of absence for twenty days, with permission to leave limits of the Department. S. O. 157, Department of the South, September 6, 1873.

BYRNE, C. B., ASSISTANT-SURGEON.—Granted leave of absence for sixty days, with permission to apply for an extension of thirty days. S. O. 182, A. G. O., September 11, 1873.

SATURDAY, SEPTEMBER 27, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE ON CHRONIC CORPOREAL ENDOMETRITIS.

BY F. H. GETCHELL, M.D.,

Clinical Lecturer on the Diseases of Women and Children in the Jefferson Medical College.

GENTLEMEN,—We had before us this morning Miss B., aged 23, by trade an artificial-flower-maker, and by listening attentively to the history of her troubles, and by a series of questions, we learned from her that she had been out of health for the last three years.

Her first complaint was of her monthly sickness. She told us that she menstruated regularly as to the time, but that the discharge was of only one or two days' duration, the amount very scanty, and the pain excessive. She said the pain began two days before the menstrual discharge, and continued some hours after it had stopped, but that it was somewhat less severe after she began to menstruate than for the two days before.

You remember she told us that she was obliged to keep her bed from one to three days each time she was sick, and that her mother gave her "gin and tansy, hot-water and mustard foot-baths, and opened her bowels with castor oil," and although she experienced some relief from this treatment, her sufferings were still very great, and after it was over she lived in anticipation of the agony she knew she must go through the next month. She has headache sometimes in the afternoon, but is not very much troubled with it. She is annoyed with indigestion to some extent, and her bowels are constipated. She has more or less pain all the time in the lower part of her back, and it fatigues her very much to walk, and the back-ache is much worse after a long walk or any unusual exertion. In fact, she said she felt tired most of the time, and were it possible for her to follow her inclination she would lounge about the house for the entire day.

On examining this patient with the finger, speculum, and uterine sound, we found, with the exception of a slight whitish discharge exuding from the os, that part of the uterus to be seen through the speculum to be in a normal condition. When making the digital examination, if we pressed the cervix against the walls of the vagina it gave her no pain, but if I placed one hand above the pubis and with two fingers in the vagina compressed the entire uterus, she complained of great pain. On introducing the sound it met with but slight obstruction at the os internum, and caused no pain until the end of it was pressed gently against the mucous lining of the uterine cavity; but this gave her great pain when it touched the sides or fundus. The withdrawal of the sound was followed by a slight discharge of bloody mucus.

She complains of a leucorrhœal discharge that she has most of the time, but which is more profuse just before, and just after, her menstrual periods.

You will remember that at our last lecture I told you that inflammation of the parenchyma of the uterine neck was the most frequent uterine disease among women that had borne children; and I now tell you that I believe the case I bring before you to-day—which is chronic inflammation of the mucous membrane of the uterine cavity—to be the disease of the uterus oftenest met with in unmarried women, and in married women who have never been pregnant.

You will often be asked, Why do unmarried women have womb-disease?

There are a variety of causes given in your books that may bring a woman to this unfortunate condition; but instead of consuming time in going over the long list of possible causes, let us look for a moment at the most frequent or principal cause,—namely, imprudence during menstruation,—and see if we cannot convince those who think there is no reason why an unmarried woman should have uterine inflammation that they may be mistaken. You heard me question the patient with regard to her habits of life before she was troubled as she now is; we asked her if she made any difference in her clothing, or took any less exercise, while she was menstruating. She said she did not; and then by questioning her we found that, as she was obliged to work through the day, night was the only time she had for recreation; and she told us that she was in the habit of attending several public balls every week during the fall and winter; that she made no difference during the week she was menstruating, but dressed herself in thin clothing, went to balls, and danced till a very late hour, often reaching home, after a long walk through the snow, with draggled clothing and wet feet.

It is not among the lower classes only that you will find imprudence during menstruation, and its unfortunate results, but you will often be called to attend the daughters of indolence and luxury. Not only is their entire life an unnatural one, but they too go to parties while menstruating, dressed in a ridiculous fashion, and remain standing for hours in overheated, badly-ventilated rooms, then adjourn to the cooler hall, or to a seat on the stairs in a direct draught, for a chat with a young man who waltzes exquisitely and displays his classic brow to the best advantage by parting his hair in the middle. I need not tell you that tight lacing has anything to do with uterine disease, for all the women in this country wear their clothing very loose. If you think this is not true, why, ask your first young lady patient that you suspect of lacing tightly, and after a full expiration she will, by contracting the muscles, draw in her abdomen, and then run her hand under her corset, and say, "Look there!" when, if her corset-lacings were to break, the explosion would be equal to the popping of a bottle of soda-water; and when this young lady gets out of bed in the morning, her maid will tell you that the corset-marks of the night before can be plainly seen about her waist.

Cases of internal metritis do not all present the same symptoms: while the menstrual discharge is generally scanty and of short duration, there are cases in which the discharge is profuse, and continues for a longer time than in health. Some of the patients suffer much more than others. You remember we had a young girl before us at our last lecture, who told us she had had a convulsion every time she menstruated for the last thirteen months. Females who suffer in this way are often hysterical, and most of them are exceedingly nervous. The pain in the back is rarely absent, and sometimes is very annoying; and they all have more or less leucorrhœa.

To relieve the intense pain at the menstrual period I think you will find it best to give the patient full doses of morphia at once. I am in the habit of giving a pill composed of one-fourth of a grain of sulphate of morphia, one grain of camphor, and two grains of the extract of hyoscyamus; but it is from the local applications made during the absence of the catamenia that you expect permanent relief. Although general medicinal treatment alone is powerless to subdue this disease, you must not neglect to avail yourselves of so powerful an accessory to the local means employed. You will find among all classes that hygienic laws are daily violated, and you must include in your treatment of these cases not only such medicines as in your judgment are required, but you must not fail to give such dietetic and hygienic directions as may be required to improve the general health of the patient.

The reason the so-called local treatment of this condition is so often unsatisfactory is not that the disease is incurable, but that there has really been no local application made. There is no doubt that many of these patients have had a stick of nitrate of silver passed up the cervical canal time after time, and, while that may be proper treatment for cervical endometritis, it is worse than useless if it is the mucous lining of the cavity of the body of the uterus that is inflamed, for none of the application goes above the os internum. Now, as you all know that the distressing symptoms of inflammation of the lining of the cervical cavity are relieved by alterative applications, the fact that I desire to impress upon your minds to-day is that the inflammation of the mucous lining of the cavity of the body of the uterus will disappear just as surely if the proper remedies are applied to the parts diseased. The first step in the treatment is to dilate the cervical canal; this may be done at once by the uterine dilator, or by the slower action of the tent. Although a little time is lost by using the tent, it is by far the best method, and the only one I recommend you to employ in the treatment of these cases. The sponge-tent is perhaps the best, provided you can introduce it without difficulty; but, as it must be passed through the internal os, the resistance met with at this point is often considerable, and for this reason I have found the laminaria-tent, on account of its firmness and small size, much easier to introduce; and as the amount of dilatation required is not very great, I advise you to use it if you find any difficulty in introducing the sponge-tent. Having dilated the cervix, you introduce the vaginal speculum, and with a wisp of cotton twisted around the end of a probe remove the mucus from the uterine cavity; then with a sable brush you paint the entire cavity with the alterative you have selected for the purpose. Nitrate of silver is highly recommended; but, while I prefer it for cervical endometritis, I very seldom use it above the os internum. I have invariably been disappointed with it in the treatment of internal metritis, while with iodine I have had every reason to be satisfied. The formula I use is—

℞ Potass. iodidi, ℥ss;
Iodinii, ℈iv;
Glycerinæ, ℥j. M.

The application may be made every eight or ten days; it gives but little pain, and the patient is required to keep her bed but one day. The length of time required to relieve these patients of course depends very much upon circumstances: while some will menstruate without pain after a few applications, others will require treatment for a much longer time before relief is experienced, and in some cases you will be obliged to resort to more powerful applications. After applying the above a number of times, if there is no improvement, I then use nitric acid; there is no danger in applying this powerful caustic to the uterine mucous membrane; at any rate, I have often applied fuming nitric acid without the slightest bad effect, and its remedial power in these cases is remarkable. In using the nitric acid, care should always be taken to protect the cervical canal: this may be done by passing the probe, with the wisp of cotton saturated with the acid, through a glass tube, a piece of a large-sized gum catheter, or through the ordinary uterine speculum. The nitric acid should be applied at longer intervals, and the patient must remain at rest in the horizontal position till all fear of inflammatory action has passed. It may appear singular to you that an inflammation of a mucous membrane alone should remain for so long a time and cause so much discomfort, and also that the parenchyma is not involved; but if you will recall your anatomy for a moment you will remember that the lining membrane of the uterine cavity is totally unlike the mucous membrane that is found in other parts: so thick is it that it makes up nearly one-fourth of the uterine wall, and when once it becomes the seat of chronic inflammation there is little or no hope that it will subside spontaneously.

ORIGINAL COMMUNICATIONS.

A CURE FOR EPITHELIAL CANCER.

BY GEORGE G. BREWER, M.D.

WHATEVER tends to increase our capability of coping with a formidable disease cannot be uninteresting to the medical profession. Although cancer is a common disease, and one with which the

surgeon and pathologist is familiar, it is a lamentable fact that it often baffles all treatment. I have always thought that the surgeon's knife was the proper and only treatment for cancer of every description. But my experience in treating an epithelial cancer lately has greatly changed my opinion. The subject of the case was a gentleman fifty years of age, stout and healthy. An epithelial cancer about the size of a hickory-nut located on the cheek near the ear. He consulted other medical gentlemen, who confirmed my opinion and advised him to have it removed. At his request, I removed it with the knife. Part of the wound healed in a few days, but the upper portion soon sprouted out with the cancerous disease. I then applied caustic potassa, not only to it, but to a considerable margin around it. In about ten days after the sloughing was over I found that the entire margin had taken on the cancerous disease, and my patient was in a worse condition than before the operation. At my request, he consulted several surgeons, who objected to operating any more, for fear of enlarging the cancer, and advised a soothing treatment,—poultices of bread and milk. This was followed without benefit for six months, when a friend gave him a recipe which I did not object to his using:

Chlor. zinci, gr. viij;
Bloodroot, gr. v;
Starch, gr. viij.
Make into a paste with honey.

The cancer was at this time nearly as large as a hen's egg. After applying the paste for two weeks, he called to see me. I found it had diminished to half its former size. I advised him by all means to continue it. After a month's use of the remedy, the cancer was not larger than a dime. He continued to use it until the disease was cured. There is at this time nothing but a cicatrix, where before was a large epithelial cancer. I report this case for the purpose of calling the attention of the profession to this remedy in epithelial cancer, and do recommend those who have such cases to treat to give it a trial.

258 West Fayette Street, Baltimore.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. R. J. LEVIS.

Reported by John B. Roberts.

FRACTURE OF THE CLAVICLE BY DIRECT VIOLENCE—THE POSTURAL TREATMENT.

A MAN fell from a loaded cart, fracturing his left clavicle near its sternal end, by the wheel passing in a vertical line over his chest. The clavicle is fractured more frequently than any other portion of the skeleton, as it is a delicate bone with two curvatures, is subject to powerful muscular action, and is so placed as to receive the transmitted force from blows upon the shoulder, elbow, and hand. It is sometimes broken by muscular effort, as in a case seen by Dr. Levis, where a woman sustained fracture of both clavicles in trying to lift a heavy child with each arm. In another case a man broke the bone in the exertion of raising himself from the ground by grasping an overhanging branch of a tree.

Usually the clavicle is broken at the outer part of the middle third, or at the junction of the middle and *outer* thirds, for in this situation the bone is thinnest, and has the greatest amount of curvature and the least ligamentous and muscular support. There is a sort of intermuscular space between the trapezius and deltoid insertions externally, and the sterno-mastoid and great pectoral origins internally.

In this instance the injury is the more rare result of *direct* violence, and the fracture is found exactly where the force was applied. The deformity produced by the displacement of the fragments is perceptible to the eye, and can be distinctly traced by the finger. The outer fragment is drawn downwards, forwards, and inwards by the weight of the arm and muscular action, while the inner one is drawn slightly upwards by the sterno-mastoid.

Of all fractures, that of the clavicle is most difficult to cure without deformity, for the reason that the application of efficient extension in the line of the long axis of the bone is impracticable. Whatever form of apparatus is used, there is always more or less displacement remaining; and it is doubtful whether in oblique fracture a cure without deformity is ever attainable.

The best results seem to be accomplished by simply keeping the patient in the supine position on a flat, hard bed, with the shoulders unsupported by pillows, but with the head somewhat elevated to relax the sterno-mastoid muscle, which tilts up the inner fragment. This treatment can be rendered still more efficacious by placing a weight, such as a bag of shot or sand, on the front of the shoulder, fastening it in position with adhesive strips to keep the shoulder, and with it the outer fragment, pressed backward.

The surface of the bed acts also as a splint, by making pressure on the angle of the scapula, and so giving a leverage which throws the upper part of the scapula upwards and backwards; of course carrying with it the outer fragment of the broken clavicle. This influence of the scapula in overcoming displacement can only be effected by treatment in the horizontal position.

As the clavicle is a spongy and vascular bone, consolidation soon takes place, and the patient need not be obliged to keep his bed more than a couple of weeks. If the union be not firm at the expiration of that time, some form of supporting apparatus can then be applied, and the patient allowed to go about. The general objection to this efficient plan of treatment is its irksomeness and restraint, and its inapplicability to restless individuals and to children; but it can be well carried out in adults under the discipline of a hospital.

In the present instance, as the man returns to his home, and will be treated as an out-patient, the apparatus known as Levis's apparatus for fracture of the clavicle is applied, which fulfils the indications as effectively as is possible, and is more comfortable to the patient than any other.

Dr. Levis stated that in fracture of the clavicle in young children, as the bone is short in comparison with the width of the chest, and there is but little tendency to displacement from muscular action and the weight of the shoulder, he relied on the simple plan of keeping the arm and shoulder supported by broad strips of adhesive plaster, which should be kept on for two weeks, and then replaced by a simple handkerchief-sling.

UNUNITED FRACTURE OF THE TIBIA—TREATMENT BY PERFORATING THE BONES AND CARTILAGINOUS CALLUS.

A woman, aged 40 years, sustained a fracture of both bones of the right leg, in the lower third, fifteen weeks ago. The fibula united without unusual delay, but the

fragments of the tibia failed to consolidate, and at this time a false joint exists between the ends of the bone at the point of fracture. The unnatural mobility is somewhat restricted by the united fibula acting as a splint to the larger bone, but the amount of motion is nevertheless considerable.

There is evidently a mass of cartilage surrounding and uniting the fragments, in which, from some unknown cause, bony matter is not deposited. This case differs from those more rarely seen, in which there is an absolute deficiency of uniting material of any kind, which condition is that to which the term *false joint* is more correctly applicable. The present case is properly an illustration of simply a delay or check in the process of union.

In cases of delayed union a highly nutritious diet is proper, and when the fracture is in the leg the limb should be allowed to hang down below the rest of the body, in order that blood may be fully supplied for the reparative process. It is probable that this *natural position* of the limb would, if more generally resorted to, avert the permanent condition of false joint in fracture of the lower extremities. With such object the leg may be encased in some form of fixed dressing, and the patient allowed to walk on crutches.

Osseous consolidation will generally be insured, in cases of delayed union, by making strong friction of the broken ends upon each other, and, at the same time, bending or breaking up the indolent cartilaginous callus. Such treatment is, however, inapplicable here, on account of the restriction of motion caused by the fibula, as a violent effort might re-fracture its recent bony union.

The plan determined on is the repeated perforation of the ends of the fragments and of their cartilaginous surroundings with a bone-drill, which will excite renewed action in those tissues. The instrument is inserted through but two points in the integument, but it is several times re-entered in the bones, and traverses the fractured extremities in a number of radiating directions. Some inflammatory action will probably be excited, and with it the completion of bony consolidation is hoped for.

After completion of the drilling operation the limb will be encased in a permanent or immovable dressing. For this purpose the Bavarian dressing of plaster of Paris is the best, from its ready application and removal; but bandages stiffened with starch or silicate of soda may be available.

JEFFERSON MEDICAL COLLEGE.

CLINICAL SERVICE OF PROF. DA COSTA, SEPT. 29, 1872.

Reported by W. H. Webb, M.D.

ANEURISM OF THE THORACIC AORTA.

HENRY S., 45 years of age, resident of Wilmington, Delaware, moulder by occupation, presented himself, with the following history:

Had always enjoyed excellent health until two months previous to the date of his present illness; was not strictly temperate. About two years previous to his presentation at the clinic, he received a blow upon the left breast just above the base of the heart; since which time he dates his present illness. It was followed by a smothering, particularly when recumbent, and this was always worse at night: he was not short of breath at other times. The attacks of dyspnœa would last from ten to twenty minutes, and some nights they would be so severe as to prevent him from going to bed. Two months previous to the accident he had muscular rheumatism, and six months after, the above symptoms continuing, he noticed a swelling and soreness on the left side, and about the middle of the chest, with no weight, but a sense of oppression. The oppression has become worse, and he is seldom free from it. He now also has weak spells, which come on when he is worn out by the oppression. He has pain over the cardiac region generally, also pain in the spinal column about opposite this region; the pain is burning in character, worse on pressure over a sore spot near the left shoulder, but not elsewhere. The dyspnœa continues, and still prevents his taking the recumbent posture, except at long intervals.

He is thin, having lost forty pounds in the last two years. Color is sallow; expression is anxious. Pulse 105, full; this pulse is very feeble, small on the left side, very full on the right side; pupils both react to light, no material difference between them.

He has some difficulty in swallowing solid food, but has greater difficulty in swallowing liquids, which often regurgitate.

His respirations are 30 per minute; tongue very much coated; appetite poor; bowels mostly loose; urinates freely, and urine is free from albumen.

The swelling, which appeared two years ago, was at first higher up than at present; it is large, occupying nearly the whole cardiac region, more particularly the centre. A marked swelling exists at the second intercostal space, and the second rib is prominent and out of place; the most obvious swelling, however, is between the third and fourth ribs.

The hand placed over the swelling finds two distinct pulsations: the first is heaving and long, the second is short.

Measuring from over the centre, the tape passing under the axilla, gives 19½ inches on the left side, 17½ inches on the right side; two inches below the nipple the left side is 16½ inches, the right side is 17¼ inches.

Auscultation.—Passing below and going down under the nipple and within, the heart-sounds are heard, the first rather dull, both confused; impulse moderately forcible. Heavy sounds, different from those of the heart, are heard over the mass; the second sound is dull, lacking sharpness, there being no murmur or thrill. The stethoscope being placed over the carotids, there is a dull sound with the expansion of the artery on both sides, but the right carotid beats more forcibly than the left; no murmur is perceptible.

The dulness does not extend below the nipple. Percussion could not be accurately carried out, in consequence of the severity of the pain in the thoracic walls.

Posteriorly we perceived the pulsation with a very faint murmur; the pulsation was distinctly felt over the spinal column somewhat above the point opposite the spine of the scapula.

He was somewhat hoarse, but his voice was not otherwise altered.

The position assumed by the patient, and the one that was most comfortable to him, affording the least pain, was both striking and peculiar: it was that of squatting or stooping. When in bed he would lie upon his abdomen or right side; he could not lie upon his back or left side, owing to the severity of the pain produced by either of those positions.

Diagnosis.—Aneurism of the aorta.

Treatment.—Potassii iodid., gr. x, tinct. aconiti rad., gtt. i, syr. aurantii cort., aquæ, ää ℥ss, every four hours.

[In two months after being under the above treatment he expressed himself as being free from pain, when he resumed his occupation, at which he continued for a few months, when he was obliged to give it up, owing to weakness.

During the interval of the patient's visit to the college, and at the time of his death, July 21, 1873, he was under the charge of Dr. S. L. West, of Wilmington,

Del., through whose influence and kindness I was enabled to make the post-mortem examination, which was made twenty-four hours after death.

There were present at the examination Drs. S. L. West, C. W. Jones, C. W. Kirchner, and E. C. Dunning.

On opening the thoracic cavity the aneurismal sac was found to be closely adherent to the surrounding parts. There were strong attachments to the sternum, with erosion of about two inches at the posterior and upper part, the adhesions extending to the clavicle.

The aneurismal sac was torn somewhat in detaching it, its walls being very thin. It extended from the semilunar valves of the aorta, involving all portions of it down to the thoracic portion, the ascending portion being particularly dilated, its walls apparently losing their identity as composing a blood-vessel, being very rough on their interior and very thin. The transverse and descending portions were dilated to more than twice their normal calibre.

The sac extended upward, but encroached principally upon the left thoracic cavity, displacing the heart and compressing the left lung to about one-fourth its normal size; the structure of the lung was very dense, and gave evidence of having been in that condition for a long time.

No erosion was found of either the clavicle or the first or second rib, though the adhering parts of the two latter had to be removed with the mass. The costal cartilage of the second and third ribs of the left side, as also the intercostal muscles for the space of three inches over the mass, were totally destroyed.

The tumor overlapped the third rib, and in the sac-wall was included two inches of its sternal extremity; being very brittle, it was broken off in removing the specimen; the surface is very much eroded, being less than half the usual thickness, and has the appearance of necrosed bone.

The sac was also closely adherent to the vertebral column, but the vertebræ were intact.

The sac contained closely adherent to its walls—and particularly the anterior—a large, broad, laminated, fibrinous clot, varying in its color from a dusky pink to a deep red, and also varying in its density from the apparent recent clot to the solid fibrinous deposit.

If the sac was entirely empty it would contain nearly a half-gallon.

The pericardial sac contained about a pint of serous fluid, in which was found what appeared to be quite a recent blood-clot, which did not mix with or even color the serum. It apparently came from an oblique longitudinal rent in the walls of the aneurism, one inch and a half long, about one inch above the semilunar valve; the rupture extended through the fibrinous lining of the aneurism.

The heart was rather smaller than normal; its walls were very soft and flabby, and were fatty; the valves were slightly opaque, but otherwise normal. There were no signs of inflammation.

Fluid in the pleural cavities only amounted to a few ounces.—W. H. W.]

Dr. St. Clair Gray calls attention (*Glasgow Med. Journal*) to the little value of an unruptured hymen as proof that rape has not occurred. He relates the particulars of three cases in which the hymen was found persistent in prostitutes. These three cases were found among about 1500 who, within the last few years, have applied for admission to the Glasgow Magdalene Asylum, Lockburn, Maryhill; and should subsequent experience establish this as the precise proportion, viz., 1 in 500, it will considerably affect the significance of persistence of the hymen as an evidence or a sign of virginity.

TRANSLATIONS.

NEW INVESTIGATIONS UPON THE PROTOXIDE OF NITROGEN.

By MM. le Doct. Jolyet and T. Blanche. Translated from *Archives de Physiologie* for July, 1873,

BY FRANK WOODBURY, M.D.

In view of the conflicting opinions regarding the physiological effects of nitrous oxide gas, none of which can at the present time be considered as established, Messrs. Jolyet and Blanche have recently instituted a series of experiments to determine with precision the following questions:

a. Can the protoxide of nitrogen be regarded as a supporter of respiration?

b. Has it anæsthetic or other qualities capable of being utilized in medicine?

a. Is the protoxide of nitrogen a respirable gas for plants and animals?

Plants.—We endeavored first to determine whether grain would germinate in a medium of pure protoxide of nitrogen, and, if germination had already commenced, whether it would continue under these conditions. From the experiments of Saussure it is known that the germination and development of plants are impossible in a medium containing no oxygen; seeds never sprouting in nitrogen, hydrogen, carbonic acid, etc. We then came to consider whether nitrous oxide—a gas unstable and rich in oxygen—would be able by that oxygen to support the respiration of plants. We therefore placed seeds of cress and barley upon a damp filter-paper in an atmosphere of pure protoxide of nitrogen. At the end of nine days in one experiment, and five days in another, the seeds had not even commenced to sprout; while other seeds, under the same conditions, but in ordinary atmospheric air, entered into complete germination as soon as the third day. Permitting then a small portion of air to enter the receiver where the seeds had not sprouted, we saw, in both cases, germination produced in two or three days.

In other experiments we have placed seeds in the act of sprouting in pure nitrous oxide; the development was arrested, and again resumed when a portion of air was allowed to enter the receiver. We have proved further that in protoxide of nitrogen plants do not exhale carbonic acid.

From these different experiments we believe that we may conclude that the oxygen of the protoxide of nitrogen cannot be utilized by plants for respiration; and if the contrary has been asserted, it is because the gas experimented upon, not being perfectly pure, contained a small quantity of oxygen, and we know that a very small quantity of oxygen only is needed for the commencement of germination.

Animals.—Frogs were placed, for comparison, in receivers containing respectively pure protoxide of nitrogen, carbonic acid, carbonic oxide, hydrogen, and nitrogen. While those plunged in hydrogen, nitrogen, and carbonic oxide only expired after two or three hours' stay in these gases, exhibiting at the termination stupor and drowsiness (as Jean Müller had already proved), those placed in carbonic acid were seized at once, and died quickly. The frogs placed in the nitrous oxide succumbed at the end of two hours' exposure to the gas.

We placed a sparrow under a jar containing 2.5 litres of protoxide of nitrogen, where death took place at the end of thirty seconds. One placed—for comparison—in a jar containing hydrogen, died in the same time.

A guinea-pig inspiring pure nitrous oxide by the trachea died in 2½ minutes.

In the same way a rabbit died suddenly at the end of

2 minutes and 24 seconds of respiration of pure nitrous oxide.

From these experiments, and others which we will not here recall, we are compelled to say that chemically-pure protoxide of nitrogen cannot support respiration in animals or plants. We may, therefore, here repeat the remark made above, that if certain authors have believed themselves able to demonstrate that this gas is one which can support respiration, it is because they experimented with impure nitrous oxide, containing a quantity more or less great of oxygen, according to the time more or less long that the animals lived in the gaseous compound.

b. Does the protoxide of nitrogen possess any specific properties?

If pure nitrous oxide is not able to support respiration in plants and animals, is it a gas inert, like hydrogen or nitrogen? or, on the contrary, being very soluble (water dissolving four-fifths of its volume), will it enter into the circulation by the way of absorption, and, dissolving in a greater or larger amount of blood, be carried to the nervous centres, there to produce peculiar effects, stupor, anæsthesia, etc.?

With this in view, we have studied the phenomena presented when animals are made to breathe pure nitrous oxide, or an artificial atmosphere of pure protoxide of nitrogen and oxygen.

Frogs placed in pure protoxide of nitrogen exhibit the following phenomena: After three or four minutes, more or less marked diminution in the respiratory movements of the throat and sides, soon followed by stupor and drowsiness, from which he rouses himself at intervals more or less prolonged. The animal spontaneously or following excitation makes a few respirations, and if placed on his back regains his natural position, and soon resumes his former stupor. In this condition the frog remains perfectly sensible to pinching of his toes, sensibility which can be proved after the expiration of forty-five minutes in the gas.

A guinea-pig was made to breathe, by the trachea, from a bag containing eight litres of pure nitrous oxide; thirty-five seconds after, the animal was perfectly sensible to pinching of his paws; after forty-five seconds respiration was labored, but sensibility remained intact. On allowing the animal to breathe air freely, he revived in a few seconds.

Half an hour later the same animal was again made to breathe the pure nitrous oxide. After one minute and forty-five seconds, sensibility was still preserved; after two minutes and twenty seconds, it was extinguished; and death supervened in two minutes and thirty seconds from the time the experiment was commenced.

A rabbit was made to respire pure protoxide of nitrogen. After one minute and forty-five seconds the animal struggled and showed signs of asphyxia, but sensibility was proved to persist. On withdrawing the nitrous oxide and allowing him to breathe the air, the animal rapidly recovered.

In another experiment upon a rabbit, sensibility existed even after two minutes and twenty-four seconds; at this moment respiration terminated abruptly, but we were able to restore the animal to life after some moments of artificial respiration.

The preceding experiments show that pure protoxide of nitrogen produces asphyxia with all its signs. Having noticed that anæsthesia occurred at the moment the animal's arterial blood became black (and knowing that, when animals are subjected to asphyxia, anæsthesia takes place as soon as the arterial blood only contains two to three per cent. of oxygen), in order not to attribute to nitrous oxide the concomitant anæsthesia, which may be attributed to pure and simple asphyxia, we have made the following experiments.

We added protoxide of nitrogen and oxygen in different proportions, so that the mixed gases contained eighteen to twenty-one per cent. of oxygen and sixty to eighty per cent. of nitrous oxide. In this way the animal had at his disposal a quantity of oxygen almost equal to that existing in atmospheric air, while at the same time the combination was sufficiently rich in nitrous oxide to produce its specific effects, if it really possessed any.

Frogs remaining twenty-four hours in a mixture of four-fifths protoxide of nitrogen and one-fifth oxygen did not present a single appreciable phenomenon; sensibility, when the toes were pinched, was very evident.

Two other frogs, after remaining five days in a receiver containing 300 cubic centimetres of oxygen to sixty per cent. and one litre of pure nitrous oxide, did not show at the end of this time either stupefaction or anæsthesia.

At twenty minutes past five o'clock we placed two sparrows, for comparison—the one under a bell-jar containing air, the other under a similar jar containing oxygen and nitrous oxide in the proportion of the gases of the atmosphere.

7 o'clock.—There was some trouble in respiration, noticed equally in both birds.

7.30.—We left the sparrows panting, puffed out, and both alike.

9 o'clock.—We found the birds dead.

On making an analysis of the air remaining in the jars, we found in the one containing air—

Carbonic acid . . . . . 11 per cent.
Oxygen . . . . . 6 "

In the one containing nitrous oxide and oxygen—

Carbonic acid . . . . . 12 per cent.
Oxygen . . . . . 5.8 "

At 2.40 P.M. we put a sparrow into a mixture of four litres of nitrous oxide and 600 cubic centimetres of oxygen. At 3.30 P.M. the same; no change in the appearance of the bird.

4 P.M.—He commenced to pant. We then collected the gas in the jar, which gave 9.2 per cent. of carbonic acid on analysis. The bird rapidly recovered.

At 6.45 P.M. we placed a sparrow under a two-litre receiver, containing oxygen and nitrous oxide in the proportion of 18 to 82 per cent. The bird remained quiet until 7.45 P.M., when his respiration became labored. When seen at 9 P.M. he was panting, and death took place at 9.15 P.M. The analysis of the gas in the jar gave 12 per cent. of carbonic acid and 3 per cent. of oxygen.

A small dog was made to breathe a mixture of protoxide of nitrogen and oxygen in the proportions of atmospheric air. By means of a caoutchouc muzzle and the valves of Müller, he only inspired the gas contained in the bag, the expirations going outside, so that there could be no complication from asphyxia by the carbonic acid. The animal breathed this mixture for twenty-two minutes, during all of which time he remained sensible without stupor or drowsiness; galvanization of his sciatic nerve by a feeble current produced pain, and, when he was called, he gave signs of attention.

These experiments show therefore that animals are able to breathe an artificial atmosphere containing eighteen to twenty per cent. of oxygen and sixty to eighty per cent. of nitrous oxide during a time sufficiently long, without showing any manifest phenomena, and, above all, without exhibiting anæsthesia.

As the protoxide of nitrogen is very soluble in water, which dissolves four-fifths of its volume, it was of interest to discover what quantity of it was in solution in the blood of those animals which breathed the artificial atmosphere and nevertheless showed no diminished sensibility, for comparison with that in the blood of animals breathing pure nitrous oxide, taken at the moment anæsthesia appeared, in order to decide what share in

this phenomenon to attribute to the nitrous oxide. It is also equally important to determine the quantity of oxygen existing in the blood at the same moment.

But we will first show rapidly the method of analysis of the gases of the blood which we have employed and have used also in the analysis of the mixed gases composed of oxygen, nitrous oxide, and nitrogen.

We have adopted the following, which M. Gréhant kindly pointed out for us:

The mixture to be analyzed, composed of oxygen, protoxide of nitrogen, and nitrogen, is introduced into the eudiometer.

Let v = the volume of the mixed gases, x = the oxygen, y = the nitrous oxide, and z = the nitrogen; then we have—

$$x+y+z=v.$$

By introducing a quantity of hydrogen b, we have in the eudiometer $v+b$. Now, if a spark be passed through this, the remainder may be expressed by r, and the amount lost will equal $v+b-r$.

But x of oxygen combines with $2x$ of hydrogen to form water, making a loss equal to $3x$; y of the nitrous oxide contains $\frac{1}{2}y$ of oxygen, which combines with y of hydrogen to form water, but gives y of nitrogen,* only y of hydrogen disappearing; we have then—

$$v+b-r=3x+y.$$

We add to r a volume d of oxygen, and there is in the receiver a volume $r+d$; on passing the spark there remains r'; $r+d-r'$ is the second volume disappearing, of which $\frac{2}{3}$ are hydrogen, which we will call e.

Having introduced a volume b of hydrogen, then $b-e$ = the hydrogen used in the first combustion. But x of oxygen required $2x$ of hydrogen, and y of the protoxide of nitrogen used y of hydrogen; therefore,

$$b-e=2x+y.$$

It remains to resolve these three equations with three unknown quantities:

$$\begin{aligned} x+y+z &= v. \\ 3x+y &= v+b-r. \\ 2x+y &= b-e. \end{aligned}$$

From which the values of x, y, and z are easily determined.

This said, we will relate some experiments, with the analysis of the gases of the blood determined in the preceding manner.

A dog breathing the surrounding air through the valves of Müller had in 100 cubic centimetres of arterial blood—

Carbonic acid	48.8 per cent.
Oxygen	21 "
Nitrogen	2 "

He was then made to breathe from a bag containing a gaseous mixture of 62 per cent. of nitrous oxide, 21 per cent. of oxygen, and 17 per cent. of nitrogen. The animal took seven minutes and thirty seconds to inspire fifty litres of this mixture; and during all this time his eye remained sensitive, and he took notice when his toes were pinched. The analysis of the gases of the blood, made then, gave for each 100 cubic centimetres of red arterial blood—

Carbonic acid	46 per cent.
Oxygen	19.7 "
Nitrous oxide	29 "
Nitrogen	0.3 "

The same animal, having rested half an hour, was made to breathe pure nitrous oxide gas for one minute and forty-five seconds; he was then much troubled in his breathing, but still remained sensible. On making then an analysis of the dark arterial blood, we found—

Carbonic acid	37 per cent.
Oxygen	5.2 "
Nitrous oxide	28.1 "
Nitrogen	0.7 "

A second dog, breathing, in the manner already explained, from a bag of nitrous oxide, was found to be insensible at the eye and to pinching after three minutes. The analysis of the gases of the blood, then made, gave for each 100 cubic centimetres of very dark arterial blood—

Carbonic acid	36.6 per cent.
Oxygen	3.3 "
Nitrous oxide	34.6 "

A third dog, breathing the nitrous oxide from a bag, was still somewhat sensible at the third minute; was found completely insensible to the electrization of the sciatic nerve after four minutes. Analysis of the black arterial blood then gave—

Carbonic acid	34 per cent.
Oxygen	0.05 "
Nitrous oxide	37 "

We might here relate other experiments, but think that these will be sufficient to enable us to draw the following conclusions:

When there is, in the arterial blood of dogs that breathe an artificial atmosphere of protoxide of nitrogen and oxygen, almost the same quantity of nitrous oxide in solution as that found in the same animals breathing, until asphyxiated, pure protoxide of nitrogen, we cannot attribute the anæsthesia which then appears to the presence of the nitrous oxide in the arterial blood. The cause of the anæsthesia is naturally found to be the result of the asphyxia, from the privation, more or less complete, of oxygen from the arterial blood. We know, in short, that when there is no more than two or three per cent. of oxygen in the arterial blood, anæsthesia commences to appear. (P. Bert.)

We conclude our article with the following propositions:

The protoxide of nitrogen, chemically pure, is not able to sustain respiration in animals any more than in plants; the combustion in which respiration consists not being sufficiently energetic to decompose the nitrous oxide gas.

Breathed pure, by animals, the protoxide of nitrogen is an asphyxiating gas, which produces death, with all the usual signs of asphyxia by strangulation or by respiration of the inert gases (nitrogen and hydrogen), and in almost the same time.

Breathed pure, if the nitrous oxide produces anæsthesia, it is by privation of oxygen from the blood; insensibility showing itself when the arterial blood commences to have only from two to three per cent. of oxygen. The arterial blood is then very black, and contains thirty to forty per cent. of protoxide of nitrogen.

Animals are able to live by breathing an atmosphere of protoxide of nitrogen and oxygen in the proportion of the gases in the air, the nitrous oxide replacing the nitrogen, without producing troubles of sensibility. The arterial blood then contains thirty to thirty-five per cent. of protoxide of nitrogen. Birds plunged in a similar confined atmosphere behave like those placed under a bell-jar of the same capacity containing air, and die after having nearly equally consumed the oxygen in the receivers, and formed as much carbonic acid.

The protoxide of nitrogen being an irrespirable gas, and possessing none of the anæsthetic properties that have been attributed to it, its employment can only be dangerous, and should be, under that title, proscribed from medical practice.

* [According to Bloxam, when NO is decomposed it gains half a volume; two volumes of NO containing two volumes of N, and one of O.—Tr.]

OBSERVATION UPON A CASE OF MIXED CHANCRE AND BUBO.

By Dr. P. Diday, of Lyons. Translated from *Annales de Dermatologie et de Syphiligraphie*, No. 5, 1873,

BY LOUIS A. DUHRING, M.D.

A YOUNG man, 25 years of age, came to consult me on the 8th of January, 1872. He told me his story, as follows:

"I have a mistress, to whom I had always been faithful. On the 30th of December, 1871, for the first time in my life, I went to a public house. The 3d of January, 1872 (that is to say, four days after), I perceived a small sore upon the penis."

I examined the patient, and recognized, upon the right side of the duplicature of the prepuce, an ulcer, presenting all the characters of the chancroid or non-infecting chancre, already well developed in size and general features. I prescribed a dressing of charpie soaked in a solution of nitrate of silver.

At the expiration of two weeks the patient returned to show me a painful swelling in the right groin. I diagnosed a commencing acute adenitis. The chancroid, which had been dressed very regularly, was already upon the way to recovery. The adenitis followed its fatally progressive course. Upon the 4th of February it was in a fluctuating condition, and I opened it, when several days later this opening presented a chancroidal aspect. As a dressing, I employed here the solution of nitrate of silver. At the end of about a month both the ganglionic and integumentary chancroids were healed. More than a month now elapsed, and I had entirely lost sight of the patient, when, upon the 10th of April, he returned, requesting me to give him my advice upon an eruption which annoyed him. I saw, indeed, a general roseola, some crusts upon the scalp, three glands enlarged on the back and high up on the neck, and some scales upon the palms of the hands. These symptoms, which were accompanied by pains in the head and stiffness of the neck, dated from about the 23d of March. The inguinal bubo had cicatrized. Under the integument of this region, which was still red, a ganglionic enlargement of small size, but of firm consistence, was perceptible. There was a less marked enlargement of two ganglia in the left groin, which were indolent.

In a former communication to the Medical Society of Lyons upon a wholly analogous case, I described the generation and evolution of these mixed affections, which, from the chancroidal origin about the penis and groin, afterwards assume, at that point, the aspect of the primitive lesions of syphilis and are followed in regular succession by the general symptoms peculiar to this disease. Above all, I insisted upon the causes of error that the association of these two distinct diseases can engender, and upon the consequences of these errors, fatal both to physician and patient.

To-day, studying another side of the subject, I will examine it in accordance with the doctrines, or rather the doctrine, which, it appears to me, the Faculty of Lyons have been too anxious to bury in oblivion. It is not, however, that I wish to dispute the certificate of death, quite *en règle*, which the Ecole de l'Antiquaille gave against it. But, nevertheless, I hear that the unity theory still lives somewhere in the heart of Austria, Bohemia, or elsewhere. We must then notice it here, if even for the last time. Now, what case, in appearance, was there ever more favorable to the old doctrine of the identity of the chancre-poisons than that of which you have just heard the recital?

"What!" the Austrian says to me, "what! you, Monsieur Diday, a dualist, *you* report the history of a simple chancre, of a chancroid? *you* describe it as a chancroid, but you only give it the *name* of a chancroid?

"To complete the picture; it engenders a chancroidal adenitis, and when the secondary symptoms break out later, you change your position by saying that, without doubt, it was a case of mixed chancre. But what observation can remain firm upon such a statement? Do you think that it is sufficient to *suppose* the existence of an infecting chancre, when it is too late to prove it, to convince us that it really did exist?

"The mixed chancre (*le chancre mulet*), we know, can stand a good deal, but by overstraining it do we not run the risk of running it into the ground?

"Even for their own good and preservation, ought not the dualists to connive at least at this one case?

'Have they no pity upon their old servant?'"

To this valiant attack, gentlemen, I have but one word to say. As with many practitioners, I remember that upon that day I was very much occupied, perhaps a little absent-minded, and, relying upon the existence of the chancroidal adenitis as establishing the diagnosis of the primitive ulcer, I neglected, upon the *third visit* of my patient, to look at the side of the penis (of which he did not complain) and to feel the base of the ulcer and assure myself whether or not this base presented any induration.

But even in the absence of this information I can affirm not only that an infecting chancre existed there, but, further, that it developed itself upon the chancroid or upon its cicatrix, about twenty-five or thirty days after its commencement.

Let us refer, in order to prove it, to that which we know concerning the evolution of syphilis. As a rule, especially when, as in the present case, no specific treatment intervenes, the secondary symptoms manifest themselves about six weeks after the commencement of the chancre. Now, in our patient the secondary symptoms were not manifested until eighty days after the beginning of the ulcer upon the penis. This ulcer then, which at its first appearance I recognized as being chancroidal, and nothing but chancroidal, is not the antecedent of these secondary symptoms. For, to borrow from medical jurisprudence one of its most expressive decisions, the symptoms first appeared too long after it to entitle it to be considered as the infecting source. The one source alone from which these symptoms can proceed is the other,—the *infecting ulcer*,—which I confess not to have looked for, but whose existence and paternity are clearly proven to me by the age of its offspring.

New Mode of Administering Cod-Liver Oil.—Numerous attempts have been made to render cod-liver oil less disagreeable, either by gelatinizing or solidifying it, but only with partial success. The system of capsules seems to answer best; but the great objection is the number of these which must be swallowed. Now it would seem that Messrs. Carre and Lemoine have contrived to incorporate the oil with *bread*. Each pound of bread contains a little more than two ounces of the oil, or five tablespoonfuls, and three ounces of milk. Small loaves are also made which contain only two tablespoonfuls, and which, altogether, weigh only five ounces. These loaves are beautifully white, look extremely well, and have hardly any taste. Both children and adults eat them very willingly. In M. Bouchut's ward, at the Children's Hospital in Paris, thirty-four small loaves are brought every morning, and are looked forward to with much anxiety by the children for breakfast. They have been largely used among private patients, and no one complains of any disagreeable taste. Five or six tablespoonfuls of oil may thus be given per diem, incorporated with the bread taken with the usual food.—*Lancet*, Aug. 2, 1873.

PHILADELPHIA

MEDICAL TIMES.

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MEDICAL AND SURGICAL SCIENCE.

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EDITORIAL.

TYPHOID FEVER IN LONDON.

VERY recently an alarming outbreak of typhoid fever has taken place in London, spreading through certain districts with great rapidity, and involving four or five hundred people.

It happened that several cases occurred in the household of Dr. Murchison, lately in charge of the Fever Hospital, and famous the world over for his work on continued fever. Feeling confidence in the sanitary arrangements of his dwelling, he was led to suspect some extramural cause, and instituted inquiries among several of his medical friends in the neighborhood, in whose families there were cases of typhoid fever. He found that in every instance the milk-supply, which he already regarded as the possible source of infection, was the same as that of his own household. He at once communicated with the medical officer of the parish; the milk company were summoned to suspend the sale of milk from their dairy, and a commission of inquiry appointed. It was found that of the eight farms with which the company contracted for the supply of milk, seven presented no probability of enteric contamination, but that to the eighth the most suspicious circumstances attached. The farmer, a strong middle-aged man, believed by his medical attendant to be suffering from a "fatty heart," was taken ill with indefinite symptoms about the second week in May. A fortnight later a consulting physician declared his case to be one of typhoid fever. His opinion was, however, disregarded, and the man was allowed to remain out of bed and walk about whenever he felt able to do so. For the first few days in June he had a copious diarrhœa with putrid and bloody discharges; this was followed by constipation, for which a dose of castor oil was given.

On June 8, as he was being lifted from his bed, he died. On account of the suddenness of his death, the doubt about the original diagnosis, and the fact that he seemed to have recovered from his recent illness, his medical attendant entered as the cause of death "heart-disease;" but fatal collapse is certainly of not unfrequent occurrence in typhoid fever, and the circumstance rather confirms than discredits that diagnosis.

The only privy on the premises was at the upper part of the yard, the bottom of its pit being two or three feet above the level of the well from which drinking-water was obtained, and the ground affording opportunity for free drainage.

At the time of the investigation the son of the farmer had just been taken sick with typhoid fever. It was also found that there had been an epidemic of the same disease in some neighboring villages. Acting upon these facts, the supply of milk from this farm was at once cut off by the proprietors, and since then the number of fresh cases of enteric fever breaking out in the west of London has greatly diminished. Of course much mischief has already been done, many lives have been sacrificed, and the seeds of the disease have been scattered broadcast, perhaps to originate new centres of infection; but it is due to the sagacity of Dr. Murchison in the first instance, and to the energy, courage, and ability subsequently displayed by the official investigators, that the evil has not been greater and the mischief much more extended. The cotemporary from whom we gather these interesting and important facts remarks that the occurrence of the epidemic has given a remarkable stimulus to the investigation of the media of infection of the typhoid-poison, and, it is to be hoped, with important results.

SINCE the above editorial was in type, the *British Medical Journal* of September 6 has been received, and contains much new information in regard to the present epidemic and the conveyance of enteric and other fever poisons in milk. It seems that the milk company, being a corporation, and therefore soulless, objected very strongly to their business being interrupted, asking for proof that the typhoid-

fever poison was in the milk, although they had been assured that out of thirty-seven families stricken with the fever thirty-five were supplied with their milk. They wanted, forsooth, this mysterious entity,—the typh-poison,—this thing that eye hath not seen, precipitated from their milk, weighed, analyzed, and delivered in sealed packages at their office, so that they might put it into the hands of a chemist to have its identity proven!

Even the medical health officer of the parish tried to interfere, but to no avail; and finally the sale of the poison was only checked after some days of discussion, when apparently public opinion and the fear of future damages to be judicially awarded induced this most worthy body corporate to investigate the matter.

The following extract from a letter of Dr. Murchison will show the evidence relied on by him and Dr. Jenner as demonstrating the origin of the disease:

"Out of sixty families [placed under the same conditions as to drainage, etc., as their neighbors] of the better class, already known to us, in which enteric fever has appeared within the last month, all but one have used your milk.

"In certain families not supplied by your company, individuals have been attacked with enteric fever who have accidentally partaken of your milk, and then these individuals have been the only members of the family who have suffered.

"An unusually large proportion of the patients have been young children who consume much milk. In certain families, children who drank water, but not milk from your dairy, have remained exempt; while the children who drank Dairy Reform milk have suffered; and of the adults who have taken the fever, most have been milk-drinkers."

Meanwhile, the epidemic has given rise to a great deal of discussion in regard to the production of contagious disease by milk. A Dr. Michael Taylor, of Penrith, has written a most excellent letter to a daily journal, in which he takes the ground, apparently the true one, that the contagion always gets into the milk after it has left the body of the cow. It is well known that milk is a powerful absorbent, readily acquiring the odor and taste of substances with which it is in proximity, and it appears just as ready to appropriate bad as good,—contagion as perfume. The letter of Dr. Taylor is so to the point, and the subject so important, that we quote a part of his words at length:

"It is," he says, "fifteen years ago since I brought before the profession the facts and arguments in support of my discovery of typhoid poisoning by the milk-supply. The whole story was told at the time in the *Edinburgh Medical Journal*, 1858. The facts were derived from an investigation of an epidemic in this town, similar in essential particulars to that now prevailing in Mayfair. The cows were healthy; the use of sewage grass or hay was unattainable; the addition of foul water to the milk, either by accident or by design, was practically impossible, the only available supply being the public service of pure water from Ullswater. The fever-virus entered the milk in this wise. The cows were milked by the hands of a woman who was nursing cases of typhoid fever on the premises; the milk-cans were brought into the room in which the sick were lying, and remained there until sent away to the customers. It was during the process of milking, while the thin warm stream was flowing, or whilst standing exposed to this atmosphere of fever-miasms, that the warm freshly-drawn fluid absorbed the fever-virus, and afterwards communicated the disease to those who drank it. In the outbursts of typhoid fever which exploded along the track of a milk-walk at Leeds in 1872, as reported by Dr. Robinson, and again in Glasgow in 1873, as reported by Dr. Russell, the explanation of the manner in which the milk became infected is the same as I have indicated above.

"There have been frequent outbreaks of enteric fever in Penrith arising from sewage stagnation, owing to the ignorance or supineness of the local sanitary authorities, but not again implicating a dairy until the year 1867, when a death from scarlatina occurred in a milkman's cottage. A rapid and fatal outburst of the pest among the families of the customers ensued, and an investigation forced the conviction that again the milk was the vehicle of the poison, and that the old dormant observations of 1858 were receiving their first corroboration. And it were well at the present time to be mindful that milk is a potent vehicle for the dissemination of this frequent and mortal zymotic scourge, scarlatina, and it may be of cholera also. Up to this time three distinct epidemics of scarlatina have been proved to have been diffused by milk, and have been publicly reported—viz., 1, that in Penrith in 1867, by Dr. Taylor himself; 2, in St. Andrew's in 1870, by Dr. Oswald Bell; 3, in Leeds in 1872, by Dr. Robinson. In the reports, they all agree as to the mode in which the poison was introduced into the milk. The cows were milked by scarlatina convalescents, or by those engaged in nursing the sick. In this disease the dry epidermic dust, the *débris* from the peeling skin, was the carrier of the infective germs. From the arms and dress of the milker it was shaken into the milk-pail, or absorbed by the milk from an atmosphere charged with these floating particles. In these instances it was not a question of a malady in the cow, nor of the use of sewage-grass, nor of the admixture of impure water. The evidence all bore on the direct mingling of the exuviæ, or infective germs (if science can yet honestly admit such as a known quantity), proceeding directly from the bodies of the sick or from the absorption by the milk of the fever-exhalations from the vitiated atmosphere in the vicinity of the sick."

IT is a matter which we think needs discussion, why, with our almost universal private cesspools, we are so exempt from epidemics of typhoid fever in Philadelphia. The disease is always with us, but anything like a spreading epidemic is a thing unheard of, at least in our experience.

Again, it is very difficult to understand the relations between the two forms of the disease. Are they really one? or is our "typhoid fever" a duplex entity? On the one hand there is a disease, most frequent, arising hourly in our great centres, but spontaneously and without obvious cause, never spreading, never in any tangible way connected with the entrance of a poison into the blood. On the other hand there is an affection occurring in wide-spread or local epidemics, apparently as contagious as scarlet fever, apparently as dependent upon the entrance of a poison into the system as smallpox. Won't some of our readers explain this matter for us?

WE notice that Dr. E. G. Janeway has been elected Professor of Pathological Anatomy, Professor of Practical Anatomy, Lecturer on Clinical Medicine, and Lecturer on Materia Medica and Therapeutics, in Bellevue Hospital Medical College. Verily the sun of professorial grandeur blazes upon our distinguished friend. We are reminded of the gentleman whom the genial Mark Twain met in the Wilderness. "Think of hotel-keeper, postmaster, blacksmith, major, constable, city-marshal, and principal citizen, all condensed into one person and crammed into one skin. Bemis said he was a perfect 'Allen's revolver of dignities.'" We wish joy and success to our "concentrated" professor.

We also learn that Dr. Hammond has resigned his various positions in connection with the same school. New York, and especially Bellevue, seems in the last year or two to have been afflicted with an epidemic of resignations. The constitutions of the Philadelphia Faculties are, we greatly fear, so strong as to resist any contagion. It is said an epidemic leaves a city in a more vigorous condition.

THE Berlin medical journals record the death from cholera, on August 20, of Dr. Otto Obermeier. Dr. Obermeier was already known to science by his investigations of disease. Within the last few months he had published some interesting researches on the blood in typhus fever (maculated), and, when seized with his fatal illness, was engaged in researches on cholera. Emboldened by his not having contracted the fever during his exposure, he somewhat recklessly kept in his bedroom pathological specimens taken from persons who had died of cholera, and also portions of their excreta; and, according to one account, even injected some blood from cholera patients into his own vessels. He was so devoted to his inquiry that, after he had become aware of the condition in which he was, he made some microscopic examinations on his own blood. His death occurred after an illness of seven hours, in the thirty-first year of his age.

M. GUBLER demonstrated to the Société Thérapeutique of Paris, at the séance of August 13, 1873, the fact that senna will cause a discoloration of the urine precisely similar in appearance to that which occurs in jaundice. On the addition of nitric acid, however, to the urine, the biliary reaction does not occur; moreover, caustic potash changes the color to a magnificent purple. Caustic potash added to the infusion of senna produces only a faint indication of purple, and it is probable that the principle of senna undergoes an oxidation in the system similar to that of turpentine, asparagus, etc.

IN a paper read before the British Medical Association, Dr. H. MacCormack advocates the use of anæsthetics to deprive animals of consciousness previous to slaughtering. As meat so treated would taste of ether or chloroform, we suppose all our palates would have to be educated before it would be agreeable. In another paper by the same author, read under the same auspices, it was shown that, by resort to a tube with artificial nipple properly adjusted, goat's milk might be abstracted from the living animal and transferred at once to the infant's stomach.

M. E. ROUX, in a recent communication to the French Academy (*Gazette Médicale de Paris*, August 23), asserts, as the results of experiments upon himself, that tea, and still more coffee, increases the elimination of urea. The exercise and diet being the same, the following table expresses the results:

	Daily elimination of urea.
From 14th to 18th of May (without coffee or tea)	36.18
18th of May (coffee)	41.05
From 16th to 18th of June (without coffee or tea)	33.76
18th of June (tea)	37.04

UP to the 15th of August there had been this season three hundred deaths from cholera at Vienna.

IN another column we give the translation of a French article upon nitrous oxide. The authors' science may be true; it may be that giving nitrous oxide is only a neat way of producing partial asphyxia; but certainly their practical deductions are simple nonsense. It is only the old story of Mrs. Partington and the broom.

LATE dispatches announced that the illness of M. Nélaton had taken a favorable turn, and he was supposed to be convalescent; but on Saturday last he suffered a relapse, sank rapidly, and died the same night, in the seventy-sixth year of his age.

REVIEWS AND BOOK NOTICES.

A Treatise on the Pneumatic Aspiration of Morbid Fluids. By Dr. Georges Dieulafoy. J. B. Lippincott & Co., Philadelphia, 1873.

Great practical discoveries in the art or science of medicine, revolutionizing practice, extending wider the control of the physician over disease, are, unfortunately, most rare. If the instrument, or rather principle, which Dr. Dieulafoy has been so fortunate as to discover, should fulfil the promise of the present, it will be, at least to our thinking, one of the most useful additions to our knowledge since the days of Laennec,—not affecting, indeed, so wide a range of cases as does auscultation and percussion, not comparable to the work of the great physician named, in its laborious science, but, like it, rendering, though in a more limited sphere, a hitherto obscure—nay, impossible—diagnosis certain, and, unlike it, adding a new therapeusis capable of rescuing from death cases hitherto beyond our art. The idea of penetrating closed cavities by means of hollow needles did not, as every one knows, originate with Dr. Dieulafoy; but the principle which shall render his name so famous is what he calls the "previous vacuum." By means of finely-made workmanship, a cylinder is exhausted of its air; from the end of the cylinder projects a nozzle closed by a stop-cock, and to the nozzle is attached a long, hollow, sharp needle of varying size, according to the object in view. This needle is then plunged into the tissue above the cavity to be evacuated, and when its point has entered the flesh for the distance of half an inch the stop-cock is opened, so that the needle to its point partakes of the vacuum of the cylinder. It is evident that so soon as the needle, on being pushed forward, enters fluid, the latter will be seen to spurt up into the glass cylinder; and it is equally evident that by means of a readily-contrived apparatus allowing of the conversion of the aspirator, when nearly full, into a siphon, any cavity in the body may be emptied.

The application of such an instrument as this to the purposes of diagnosis and of therapeusis is at once very plain, provided the use of it be harmless. The great power of the previous vacuum allows of the employment of a very fine needle, provided that the slender bore is kept free from dirt and rust, precisely as in hypodermic syringes; and experience has demonstrated that these needles may be plunged anywhere into the body without injury, unless it be into the heart itself. Indeed, as Dr. Dieulafoy and his followers have practised aspiration hundreds of times in inflammation of the knee without affecting the joint, except for good; as in retention of urine the bladder has been punctured ninety-eight times without a single accident; as in strangulated hernia numerous aspirations have been made without irritating in the least the intestines; as both the healthy and the diseased liver have been traversed in every direction, without harm, and the pericardium has been tapped with the best results,—it seems to us that no one can read the volume recording these successes without being convinced of the harmlessness of aspiration.

The diseases in which the process has been especially practised are hydatids and abscess of the liver, retention of urine from organic causes, hydrocephalus, spina bifida, strangulated hernia, various serous inflammations, synovitis of the large joints, and abscesses.

In a number of cases of hydatids of the liver, and in a single one of hepatic abscess, the results obtained have been most encouraging. A curious phenomenon noticed in several cases is the sudden development of urticaria with nausea and vomiting directly after the puncture. The cause of these is mysterious, but the symptoms are evidently of nervous origin, and have subsided without doing harm.

Dr. Dieulafoy details a very remarkable case of poisoning in an infant six hours old, by a dessertspoonful of laudanum. In this, aspiration and injection of the stomach was performed a dozen times in the course of ten minutes, and the viscus so thoroughly washed out that the child recovered. Dr. Rasmussen, of Copenhagen, gives the details of a case of spina bifida in which he effected a cure by means of aspiration.

We pass by the chapters on the use of aspiration in strangulated hernia, merely stating that the harmlessness and apparently the efficiency of the procedure are such that it should always be applied previous to the last efforts at taxis.

Space also fails us to follow our author through the many pages devoted to consideration of the application of his method to pleuritis, peritonitis, pericarditis, synovitis, etc. The subject of aspiration is one of such grave importance that it behooves every man who practises medicine or surgery not to be content with such information as can be conveyed in the limits of even the longest review, but to read the book carefully, to ponder its teachings, and to test its methods conscientiously at the bedside.

From a literary point of view, the book of Dr. Dieulafoy is fairly good; marred, however, by an offensive egotism,—an incapability of its author to forget for a moment that it was *I* who did this thing. We make no objection whatever to a man claiming even pertinaciously a discovery or invention he has made; we detest the mock modesty, the prudery, which so often betokens and is the offspring of an over-sensitive egotism, that causes an author, in total disregard of English grammar, to "we" himself; but we cannot with complaisance witness a rain of I's upon the pages of a book,—comparable only to an Egyptian plague of frogs.

In conclusion, the mechanical execution of the work is excellent. Indeed, the book is evidently not American to the manor born, but a naturalized citizen, claiming the paternity of a famous race, though born on British soil.

Lectures on Clinical Medicine. By A. Trousseau. Translated from the Third Revised and Enlarged Edition by Sir John Rose Cormack, M.D., and P. Victor Bazire, M.D. Complete in two volumes. Lindsay & Blakiston.

To criticise or review Trousseau's Clinical Medicine would be as novel in its performance and in its results as to speak forth platitudes on the comprehensiveness of Shakspeare or the dignity of Milton. Our readers—all of them, we trust—know as well as ourselves the merits and demerits of this great work; the monument

of a master-mind, it has been seen and read of all men.

The only matter of interest is as to the guise in which our old friend appears anew.

The volumes, then, before us are simply an American reprint of the Sydenham Society's edition, with the notes by Bazire omitted,—a popular edition of a medical classic,—cheap, but not altogether nasty,—holding the same relation to its British progenitor that an American book generally does to an English one. As the price is only ten dollars, as each volume is composed of nearly one thousand extra-large closely-printed pages, as the matter is most excellent, whoever buys this work gets the worth of his money,—a consummation devoutly to be prayed for.

Believing that in these few lines we have given our readers just the information they desire, we will not encroach further upon their time and patience.

GLEANINGS FROM OUR EXCHANGES.

Court Plaster.—A writer in the *Journal of Pharmacy* gives the following details. The difficulty in making a court plaster in most cases is generally that of cracking and breaking, which the addition of glycerin prevents. The following formula produces a superior quality of court plaster, that will not crack or break:

℞ Russia isinglass, ℥j;
Water, Oj;
Alcohol, f℥j;
Glycerin, ℥ss.

Soak the isinglass in the water for one day, then dissolve it by the aid of a gentle heat, after which strain it and add the alcohol and glycerin. The mixture, being now ready for use, is spread on a fine quality of silk stretched on a frame, each successive coat being allowed to dry before applying the next. Heat should not be used in drying the plaster, as it is apt to drive the glycerin out and leave the plaster streaked.

By another formula, court plaster is made in the following manner:

℞ Russia isinglass, ℥iss;
Resin, ℥xiv;
Alcohol,
Water, āā q. s.;
Glycerin, f℥ss.

Beat the resin in a mortar until perfectly powdered, then dissolve it in alcohol q. s., and mix with the isinglass solution; strain and add the glycerin.

Court plaster made in this way is very adhesive, but not as handsome as when made by the previous formula.

In another formula, gelatin is used instead of isinglass, and makes a very handsome plaster.

℞ Gelatin, ℥iss;
Water, Oj;
Glycerin, f℥j.

Soak the gelatin in the water for one day, then dissolve it by the aid of a gentle heat, and after it is dissolved add the glycerin.

This mixture, if spread on coarse and heavy silk, makes a white and opaque plaster; while if spread on thin and finer silk, the plaster will be nearly transparent and of a yellowish tint.

Case of Cephalic Chancroidal Ulceration.—Dr. R. W. Taylor, of New York, in the *Archives of Scientific and Practical Medicine*, records a case of chancroidal ulceration occurring upon the forehead of a man, just above the eyebrow. The patient, the subject of numerous chancroids about the penis, while ascending a ladder carrying a hod upon his shoulder, stumbled and struck his forehead violently against one of the rungs. The wound bled freely, and received but little care.

Four days after this accident, an undoubted chancroidal ulceration was observed at the seat of the injury upon the forehead. To verify the diagnosis, an inoculation with some of the pus from the ulceration was made upon the abdomen of the patient, which was then carefully protected. Four days after, a small undermined ulcer was present. The chancroidal ulcer of the forehead was treated with fuming nitric acid, and ran the usual course of a chancroid. Undoubtedly reliable reported cases of chancroidal inoculations about the head are rare. Dr. Taylor quotes the histories of four cases, and considers his as the fifth authentic case on record.

The Psychology of the Toad (by Dr. Thomas Hill, of Portland).—This paper consisted of half a dozen anecdotes of instances of intelligence and docility in the toad which had come under Dr. Hill's observation, and which he wished to put on record as a slight contribution towards the comparative psychology of batrachians. The most striking anecdote was that of a toad which had swallowed one end of a large earthworm, and had become so tired in its attempts to get the rest down that it was in danger of losing the whole, the worm crawling out of the toad's mouth faster than it could be swallowed. The toad then brought up its right hind foot, and, grasping its stomach and the worm in it, held the worm in with its foot, taking a fresh grip after every gulp, until the job was finished.—*Proc. of the Am. Assoc. for the Adv. of Science.—N. Y. Tribune.*

Curability of Pulmonary Phthisis.—An article published by Dr. R. Massini, of Basle, in *Deutsch. Arch. für Klin. Med.* (H. 3 and 4, 1873), contains the following remarks on the above subject, the results of the author's personal experience: In pulmonary phthisis two-thirds of the fatal cases belong to cheesy pneumonia, and in only one-third of the cases is tubercle to be found. It is impossible in our present state of knowledge to assert that miliary tubercle is curable. It is shown by the results of post-mortem examinations (discovery of cicatrices in the apices of the lungs) that cheesy pneumonia, when not complicated by tubercle, can be cured. Pulmonary phthisis, adds Dr. Massini, is frequently a consequence of abdominal typhus, and at Basle the mortality from phthisis has considerably diminished since the decrease of cases of abdominal typhus.—*London Lancet*, Aug. 23, 1873.

A Pharmaceutical Curiosity.—The Berlin correspondent of the *Chemist and Druggist* sends the following specimen of extraordinary pharmacy, culled from the first edition of the Prussian Pharmacopœia (*Dispensatorium Borusso-Brandenburgicum*, 1731). This is in Latin. The specimen which he selects is "Spiritus Cerebri Humani," p. 206 (Spirit of Human Brain). "The brain of a young man, well built and perfectly healthy, but who has been put to death by some violent means, must be crushed, with all vasculars and the spinal marrow, in a stone mortar; afterwards mixed in a glass retort, or in a large phial, with 'Kaiser Karls Hauptwasser' (somewhat similar to our eau de Cologne) and spirit of wine. This mixture is to be distilled after having stood by for one, or, better, for several years. The dose of this elegant remedy was fixed at a tablespoonful."

The death of M. Mériadec Laennec, a relative of the illustrious discoverer of auscultation, and himself an author of some note, is announced to have taken place lately.

NINE CASES OF COLOTOMY (by Christopher Heath, F.R.C.S.).—The nine cases related all occurred in females. Two operations were undertaken for cancer of the rectum, causing obstruction, which had existed many days; both patients died. Three operations were performed for scirrhus in an earlier stage, before obstruction had occurred; and of these one died and two recovered,—one of the latter dying seven months afterwards, and the other being now alive and well, seven months after the operation. Two operations were performed for syphilitic ulceration and stricture; both recovered, and are alive now. One operation was performed, as a last resource, in a patient worn out with extensive fistula and ulceration (probably syphilitic) before she applied for relief, and proved fatal. The operation was performed for the relief of a recto-vesical fistula, and was perfectly successful. The result therefrom was four deaths and five immediate recoveries. Mr. Heath appended some observations on the operation and its results, urging its earlier adoption in cases of obstruction and intractable disease, and showing the slight risk to the patient the operation *per se* inflicted. In the discussion which followed, Messrs. Maunder, Parsons (Liverpool), Meade (Bradford), Humphreys (Shrewsbury), and the president, approved of the operation. Messrs. Heath (Newcastle) and Maunder preferred the transverse incision; the latter made the wound conical, with the apex towards the deeper parts. He had met with enormous quantities of subperitoneal fat obstructing the operation. Dr. Parsons (Liverpool) had a successful case of infantile colotomy; the patient, now twenty years old, working as a dock-laborer.—*Transactions British Association, British Med. Journal*, Aug. 30.

HOW TO MAKE LIEBIG'S SOUP FOR BABIES.—The value of this soup, prepared according to Liebig's directions, is not fully appreciated in this neighborhood, partly, perhaps, because it is not often tried, and partly, no doubt, because it is supposed to be the same thing as the so-called Liebig's Food which is put up in tins by Savory and Moore. It may be that there is some way of preparing Savory and Moore's powder so as to make it palatable and digestible. But, although H.R.H. Prince Albert Victor throve on it well (vide advertisements), it must be confessed that, prepared according to the directions given, it is not very palatable, and, as far as my experience goes, not particularly digestible. The receipt for Liebig's soup is given in several books in English, but entirely without the details of the process, so that one only finds out how to prepare it well and quickly after a good many experiments. I feel sure, however, that, if the detailed directions which I give below are strictly followed, the soup will be made without difficulty.

(A.) One measure of malt, mixed with one measure of solution of bicarbonate of potash, should be left to stand half an hour.

Malt, ready ground, may be obtained of beer-brewers, though they do not make a business of selling it; it may well be sifted through a coarse sieve, to remove the largest hulls. It is well to buy bicarbonate of potash in half-ounce packages, and dissolve one package at a time in one quart of water. A large wineglass, or small teacup, answers conveniently for a measure.

(B.) Make a porridge of one measure of flour in five measures of milk.

To avoid lumps, mix a part of the milk with the flour first, and make it perfectly smooth before adding the rest of the milk. The flour should be of as coarse a quality as can be obtained.

It is not very easy to boil the porridge enough to swell the starch thoroughly and yet not burn the mixture. The most convenient vessel is a milk- or farina-boiler; though any two vessels of such sizes that one will make a water bath for the other will answer the purpose. It is easier to swell the starch thoroughly by having but little water in the water-bath and depending on the steam for heating, than by having so much water in the bath that the smaller vessel will dip into it. If there be a fire of hot coals at hand, it is well to make sure that the porridge is thoroughly boiled, by taking the vessel which contains it out of the bath and letting it stand on a toasting-rack over the hot coals, but not touching them. It is less likely to burn in this way than if put on the iron surface of a range or stove.

(C.) Let both the water-bath and the porridge cool down to about 140° or 150°, add the malt and potash slowly while stirring, and let it stand at the above temperature fifteen or twenty minutes, when it becomes thin and sweet.

When the porridge has been thoroughly boiled, it is best to fill up the water-bath, so that an even temperature can be maintained. It is certainly possible to get along pretty well without a thermometer, remembering 150° is very hot, but not boiling. Many failures, however, will be prevented by using a thermometer, which can be prepared easily from one of the ordinary, cheap thermometers which are used in dwelling-houses, by drawing it out, together with the metal scale, from the black frame, and cutting off so much of the scale with strong scissors that the glass part only will dip into the porridge. If the soup does not now become thin and sweet after standing fifteen or twenty minutes, some mistake has been made.

(D.) Boil it up once and strain it through a sieve and then through muslin.

If it were not boiled up this last time it would sour readily, but, when boiled, it keeps twenty-four hours perfectly well.

(E.) Dilute it with an equal quantity of water for a young child, and gradually increase the strength till the child is eight months old, when it may be taken in full strength.

It should be diluted only just before using, and kept in a perfectly cool place.—*Boston Medical and Surgical Journal.*

THE EVILS OF HIGH-HEELED SHOES.—Dr. Von Rothmund, Sr. (Munich), writes us as follows:—

Who would gather violets must not be frightened by the pricking of the thorns; and if one has the courage to cast a lance he must not be frightened off by the women. I do not propose in this paper to distress the reader with a dissertation on the follies of female fashion, but I shall venture to call attention to a few points in connection therewith, and I commence now at the bottom. I have nothing to say, then, about corsets, upon which folios have already been written, but I have a few facts to bring forward about the clothing of the feet. The high heels lately introduced into fashion change the long axis of the body, so that the trunk is directed backwards, and this of course alters the inclination of the pelvis. Such an alteration cannot be without influence upon conception and labor. I leave it to the obstetricians and gynæcologists to collect observations upon these facts. In my own experience I can bring forward one evil resulting from this *bizarre* position of the foot, viz., displacement forwards, even dislocation of the ankle-joint. I had a case under treatment where a dislocation occurred as a result of the predisposition thereto by high-heeled shoes, and where the patient was confined to bed for three months, notwithstanding the best treatment that could be devised. Inflammation of the ligaments and the sheaths of the ligaments is much more frequently met with. Finally, an abundance of corns is a product of this shoe dress that is not to be overlooked. Indeed, the corn-doctors are the only ones

benefited by this refinement of luxury.—*Wien. Med. Presse*, June 15, 1873.—*Boston Medical and Surgical Journal.*

A Mode of using a Three-pad Tourniquet in the Treatment of Aneurism (by E. Lund, F.R.C.S., Manchester).—The tourniquet employed was that known as Signoroni's, with a pad from the centre of the arch, so attached that it could be moved to and fro by a screw-action. The instrument was applied in the usual way over the artery, and such pressure made as would not arrest entirely the force of the pulsations. The extra pad was then brought into action, so as to press against the external side of the limb and drag the tourniquet transversely across it. This had the effect of so displacing the vessel and the tissues surrounding it that the artery was made to assume a curvilinear in place of a straight direction; and by this means the circulation could be completely stopped with less actual compression of the skin and other structures.—*Transactions British Association, British Medical Journal*, Aug. 30.

On a New Method of determining the Presence of, and Recovery from, True Ringworm (by Dyce Duckworth, M.D.).—The author called attention to the action of chloroform upon the infected hairs in cases of tinea tonsurans. It was shown that this agent caused the hairs to become white or slightly yellow in color, and thus to be distinctly mapped out and easily distinguishable from surrounding healthy hairs. The causes of the change were briefly discussed, and the particular phases of the disorder suitable for this application were pointed out. The effect of chloroform on patches of favus, tinea versicolor, melasma, and alopecia areata was likewise discussed. It was shown that no other reagent, so far as was known, possessed the peculiar properties of chloroform in affecting parasitically diseased hairs.—*Transactions British Association, British Medical Journal*, Aug. 30.

Subcutaneous Injections.—Dr. Constantin Paul recommends glycerin as a dissolvent for subcutaneous injections. He considers it to be far superior to water, alcohol, etc.; it is neutral, can be kept easily, and is, of all liquids, the one which approaches the nearest to the composition of subcutaneous cellular tissue.—*Lancet*, Aug. 2, 1873.

Third Attack of Measles.—I have a young lady, about twenty-three years of age, suffering for the *third* time from an attack of measles! All the characteristic symptoms, such as the eruption, the deeply-congested state of the mucous membranes of the eyes, nose, larynx, and bronchia, are most pronounced.—*Charles Anderton, in London Lancet*, July 26, 1873.

At the meeting of the Société de Biologie, July 5, 1873, M. Rabuteau called attention to the purgative effects of the hypersulphites of soda and magnesia, which he had found to be extremely satisfactory, but their use could not be advised, owing to their high price and their disagreeable taste.—*Le Progrès Médicale*, July 12.

Liquid Nourishment for Sick Stomach.—An egg, well beaten up, to which add one pint of good milk, one pint of cold water, and salt to make it palatable; let it then be boiled, and when cold any quantity of it may be taken. If it turns into curds and whey it is useless.—*H. S. Halahan, in Dublin Medical Journal.*

Dr. T. Bates proposes (*The Clinic*) to substitute meal for bran in fracture-dressings as an absorbent. The meal, he claims, is equal to the other dressing, and is much superior in that it packs better and holds the limb immovable in the apparatus.

MISCELLANY.

The "Brunetti process" for the preservation of the dead consists of several processes. 1. The circulatory system is cleansed by washing with cold water till it issues quite clear from the body. This may occupy from two to five hours.

2. Alcohol is injected, so as to abstract as much water as possible. This occupies about a quarter of an hour.

3. Ether is then injected, to abstract the fatty matters. This occupies from two to ten hours.

4. A strong solution of tannin is then injected. This occupies for imbibition two to ten hours.

5. The body is then dried in a current of warm air passed over heated chloride of calcium. This may occupy two to five hours. The body is thus perfectly preserved, and resists decay. The Italians exhibit specimens which are as hard as stone, retain the shape perfectly, and are equal to the best wax models.—*Ed. J. Hallock, in Journal of Applied Chemistry.*

Rusticus writes in the *Boston Medical and Surgical Journal* as follows: "Please say to the other country doctors, who don't know any more than we do, that pepsin can be very easily made an 'Aromatic Liquid Pepsin' by cutting up a calf's rennet-bag and bottling it up in half a gallon of pale sherry. It won't cost nearly so much; and mother used to feed her thirteen babies on it, at the rate of a teaspoonful to a cup of milk, with a little sugar mixed in, and a scratch of nutmeg on the top.

"I am told that you can buy rennet-bags cheap in Boston market. They are much better, I believe, after drying for weeks; and I should prefer them to pepsin. They will keep longer and better."

Boylston Medical Prizes.—At the meeting for 1873 of the Boylston Medical Committee, prizes of one hundred and fifty dollars each were awarded to David T. Lincoln, M.D., of Boston, for a dissertation on "Electro-Therapeutics," and to William C. Dabney, M.D., of Charlottesville, Virginia, for a dissertation on "The Value of Chemistry to the Medical Practitioner."

The following are the questions proposed for 1874:

1. The best method of preventing the development and spread of smallpox.

2. The development and extension of malignant disease.

Dissertations on the above subjects must be transmitted to J. B. S. Jackson, M.D., Boston, on or before the first Wednesday in April, 1874.

The expenses to the London profession of entertaining the British Medical Association were £1050, including £500 for three days' luncheons, more than £200 for the printing of circulars, the museum catalogue, programmes, etc., and £125 for charges connected with the public dinner, guests, etc.

At the last sitting of the Paris Academy of Medicine, Professor Hirtz, formerly of the Faculty of Strasburg, was elected a member.

THE QUESTION OF THE CO-EDUCATION OF THE SEXES IN GERMANY.—The Cologne *Gazette* has an article on the education and employment of women in Germany, called forth by the demand of the Russian female students to be permitted to study at German universities, which gives some new facts and lucidly illustrates the present drift of German thought. The faculty at Heidelberg University has, it will be remembered, distinctly declined to admit women to the classes. The *Gazette* says:

"The more general admission of women to the postal, telegraph, and railway services is the plain German answer to the demand made by the Russian students to be permitted to study at German high schools. It is very satisfactory to find that at all German universities where the question has been discussed, mostly in consequence of applications made by the Russian female students, the university authorities have decided against the admission of women. It is surely no degradation of the sex that men refuse to receive women at public educational institutions which by their nature are destined for men; the success of female students of medicine and law is moreover, setting aside a few brilliant exceptions, very doubtful, and as there were only two or three German female students of medicine at Swiss universities who can continue their studies there, there seems to be no reason why Germany should alter her whole university system simply because the Russian girls want to study.

"The increased employment of educated women in the public and private service is a very different matter. If the state sets the example, there can be no doubt that private railway companies will follow, and employ women on duties which they can perform as well as men and at less wages. The more general employment of women in different bureaus of the administration will also show on what other duties women are fit to be employed. That it is necessary to look to this is illustrated by the statistical tables published, which show that emigration and other causes have increased the number of unmarried women enormously. Other states, for instance Switzerland, France, and England, are in advance of Germany on this question. The increased admission of women to the Imperial postal and telegraph service is the consequence of a demand made in the last session of Parliament after a lively debate, in which the well-known deputy Leewe appeared as the advocate of women."

A FRENCH prefect wrote to one of the mayors of his department, advising him, as the cholera had broken out in the district, to take all the necessary precautions. After some time the mayor wrote to say that he had taken all the proper steps; and upon the prefect sending to see that they were effectual, he found that the only preparation the mayor had made consisted in having a large number of graves dug in the churchyard.

THE Erie Railroad Company have appointed a regular medical bureau in connection with their road, whose past history shows that such provision was badly needed.

A TRIBUTE TO THE DOCTORS.—Mr. Gladstone was a guest at the recent dinner of the British Medical Association. In acknowledging the compliment of a toast to "Her Majesty's Ministers," Mr. Gladstone paid a high, but not undeserved, tribute to the medical profession. He said that but for the care and watchfulness of a succession of able physicians it would have been impossible for him to have gone through the fatigues of political life. "It is," he proceeded, "among the mournful and noble distinctions of your illustrious profession that, although its members may not receive that acknowledgment which awaits the soldier when he falls on the battle-field, yet they are to be found in countless numbers among the truest martyrs in the cause of humanity." He complimented the practitioners of the medical art on their high claims to consideration for their promotion of beneficial sanitary legislation. He said that medical knowledge has advanced in recent years in a degree which is not, perhaps, paralleled in any other profession. There is at the present day "a greater and more sustained earnestness of purpose, and a more general exaltation of the aims of medical men."

Mr. Gladstone said in conclusion, "This age is distinguished by an unbounded activity in all the sciences of observation. Of all those sciences yours is the noblest. It is given to you to study the relations between the wonderful body and the still more wonderful soul and mind of man. You tread that border-land in which the two come in contact. It is very easy to describe the post-office or the railway system, but you have to deal with a thing far more subtle when you attempt to grasp human nature as a whole. Human progress is not to be described by formularies. It is only by the most patient observation that a sound and comprehensive knowledge on such a subject can be acquired. To you it belongs to seize the great opportunities and to accept the great responsibilities which attach to the profession of which you are members, and to show yourselves worthy of the great vocation with which you are intrusted."

THE following is from Dr. Parvin's address before the Medical Editors' Association:

"As Robert Southey well says in 'The Doctor,' man is a dupable animal. Quacks in medicine, quacks in religion, quacks in politics, know this, and act upon the knowledge. There is scarcely any one who may not, like a trout, be taken by tickling. A church dignitary once said, '*Populus vult decipi; et decipietur.*'"

COST OF CONDUCTING A MEDICAL JOURNAL.—The following are a few items in round numbers of the expense incurred in conducting the *British Medical Journal* the past year: editor $1560, sub-editor $500, printer $24,250, contributions $4800, stationery $1400, sundries $3000.

WE are glad to learn that it is intended to devote a portion of the immense wealth of the late eccentric Duke of Brunswick towards founding a faculty of medicine at Geneva.

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